Pitco Frialator®

There's Always Something Cooking!

Installation, Operation, and Maintenance Manual For Gas Fryers With Options

Including Built-In and UFM (Spacefighter) Filter Systems

Covering Models
7, 14, 14R & 18

DESIGN AMERICAN GAS ASSOCIATION CERTIFIED
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NSF®

CANADIAN GAS ASSOCIATION
APPROVED

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A **BLODGETT** Company

NOTICES

There are three different types of notices that you should be familiar with, a NOTICE, CAUTION, and WARNING. A NOTICE is a special note used to call attention to a particularly important point. CAUTION is used to point out a procedure or operation which may cause equipment damage. The WARNING notice is the most important of the three because it warns of an operation that may cause personal injury. Please familiarize yourself with your new cooker before operating it and heed the notices throughout this manual. The WARNINGS are listed below and on the following page for your review prior to operating the unit.

FOR YOUR SAFETY

DO NOT store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

WARNING: Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

TO THE PURCHASER

POST IN A PROMINENT LOCATION INSTRUCTIONS TO BE FOLLOWED IN THE EVENT THAT AN OPERATOR SMELLS GAS. OBTAIN THIS INFORMATION FROM YOUR LOCAL GAS SUPPLIER.

THIS MANUAL MUST BE RETAINED FOR FUTURE REFERENCE

WARNING

The fryer is equipped with an oil proof, electrical supply cord with a three prong safety plug. This is to protect operators from electrical shock hazard in the event of an equipment malfunction. DO NOT cut or remove the grounding (third) prong from this plug.

WARNING

There is an open flame inside the fryer. The unit may get hot enough to set near by materials on fire. Keep the area around the fryer free from combustibles.

WARNING

DO NOT supply the fryer with a gas that is not indicated on the data plate. If you need to convert the fryer to another type of fuel, contact your dealer.

WARNING

DO NOT use an open flame to check for gas leaks!

WARNING

Wait 5 minutes before attempting to relight the pilot to allow for any gas in the fryer to dissipate.

WARNING

Never melt blocks of shortening on top of the burner tubes. This will cause a fire, and void your warranty.

WARNING

Water and shortening DO NOT mix. Keep liquids away from hot shortening. Dropping liquid frozen food into the hot shortening will cause violent boiling.

WARNING

At operating temperature the shortening temperature will be greater than 300°F. Extreme care should be used when filtering operating temperature shortening to avoid personnel injury.

WARNING

It will be easier and safer if the filter assembly has cooled to room temperature before handling any filter parts.

WARNING

Ensure that the fryer can get enough air to keep the flame burning correctly. If the flame is starved for air it can give of a dangerous carbon monoxide gas. Carbon Monoxide is a clear odorless gas that can cause suffocation.

WARNING

A cooker equipped with casters and a flexible power cord, must be connected to the gas supply with a Quick-Disconnect device. This quick disconnect must comply with ANSI Z24.41. To limit the movement of the cooker without depending on the connector or quick disconnect, a restraining cable must also be installed.

WARNING

The power supply must be disconnected before servicing or cleaning the appliance.

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Chapter 1: General Information and Installation

Congratulations on the purchase of your new Pitco Frialator universal fryer. This unit will give you many years of reliable service if you follow the simple operation and maintenance procedures in this manual. Contained in this manual are the general installation, operation, and maintenance procedures for the universal fryer Models 7, 14, & 18. This information covers both units with built-in filters and Under Fryer Module (UFM) filter.

1.1 WHICH FRYER DO I HAVE?

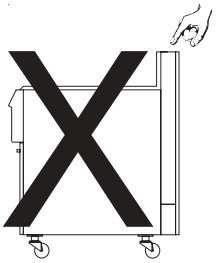
There are many models and options available for the gas fryer, each with its own model number. To find out which model you have, look inside the door at the equipment identification plate. This plate has a lot of useful information, but to identify which fryer you have, look at the model number block. The model number identifies which fryer and what features you have. A brief description of each model and it's features is provided in table 1-1.

Table 1-1 Fryer Model Information

Model Number	Description	Features
7	This unit only needs 10 1/2" of space to produce 40 lbs. of potatoes per hour.	Frying area: 8" X 14" Oil Capacity: 26 lbs. BTU Input: 55 000 BTU/Hr
14	All pupose fryer designed for a wide range of products. This model can cook 75 lbs. of potatoes per hour. This model is available with many control options.	Frying area: 14" X 14" Oil Capacity: 40 lbs. BTU Input: 110 000 BTU/Hr
14R	This fuel saving model uses high efficiency baffles to produce on 122 000 BTU's what other standard high efficiency fryers produse on 140 000 BTU's.	Frying area: 14" X 14" Oil Capacity: 42 lbs. BTU Input: 122 000 BTU/Hr
18	This model is designed for the most demanding frying needs. Available with many options and features to meet any frying need.	Frying area: 18" X 18" Oil Capacity: 65 lbs. BTU Input: 150 000 BTU/Hr

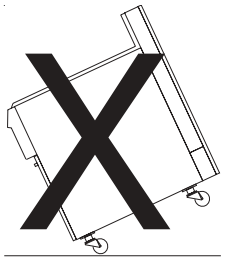
1.2 CHECKING YOUR NEW FRYER

Your new fryer and it's filter have been carefully packed. If a UFM style filter has been shipped to you it will be packed in a separate box and strapped to the top of the fryer crate. Every effort has been made to ensure that your fryer will be delivered to you in perfect condition. As you unpack your new fryer, inspect each of the pieces for damage. If something is damaged, DO NOT sign the bill of lading. Contact the shipper immediately, the shipper is only responsible for 15 days after delivery. Check the packing list enclosed with your fryer to ensure that you have received all of the parts to the fryer. If you are missing any parts, contact the dealer from whom the fryer was purchased. As you unpack the fryer and it's accessories be careful to keep the weight of the fryer evenly distributed.



CAUTION

To prevent equipment damage, don't tilt the fryer onto any two of it's casters or pull the unit by the flue vents.



Locate your Pitco Frialator warranty page and write the model and serial number of the fryer, the date received and date installed on it. You will find the serial number on the plate inside the door. Put your warranty page in a safe place for future reference. DO NOT return it to Pitco Frialator.

1.2.1 Check Your Order

The crate containing the fryer unit will also contain the following:

(2) Fry baskets per fryer
(1) Fry Basket Hanger per fryer
(2) Pitco Cleaner Sample {5}
(1) Drain Clean Out Rod {4}

The crate with the filter module (if applicable) also contains the filter tools and accessories shown in Figure 1-1. These items are very important and MUST be retained for future use. A complete description of each component is contained in the Shortening Filter Procedure in Chapter 2.

(1) Filter Crumb Catch {3}
(1) Precoat Filter Aid {7}
(1) Flush Hose (Optional) {1}
(25) Filter Sheets {2}
(1) Cleaning Brush (Fryer) {8}
(1) Fryer Crumb Scoop {10}
(1) Filter Crumb Scoop {6}
(1) Precoat Measuring Cup {9}

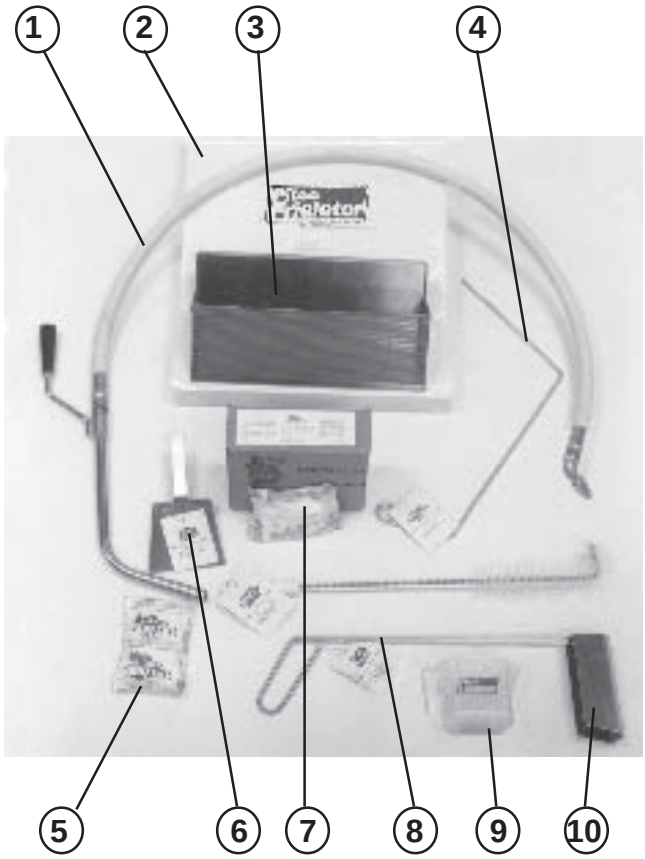


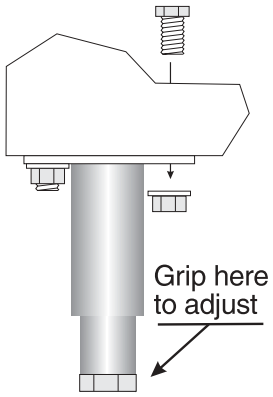
Figure 1-1 Filter Tools and Accessories

1.3 ASSEMBLY AND LEVELING

When you receive your fryer it is completely assembled with the possible exception of the legs (or casters) and the heat shield. In some cases if you have purchased a multi-fryer unit you may need to assemble the system.

1.3.1 Leg/Caster Installation and Adjustment

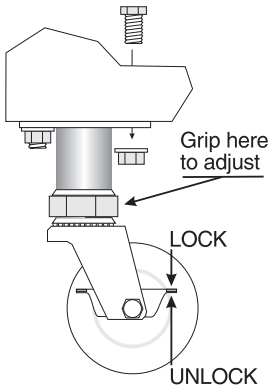
Installing the legs and leveling the fryer is done with a 7/16" wrench, socket, and a large pair of water pump pliers. The legs/casters must be installed to provide the necessary height to meet sanitation requirements and assure adequate air supply to the burner. Attach the legs by performing the following procedure.



a. Lay the fryer on its side being careful not to damage the flue by pulling on it. Protect the outside of the fryer with cardboard or a drop cloth when laying it down.

b. Attach each leg/caster with the hex head cap screws supplied with the fryer. Each leg/caster requires four 1/4-20 x 5/8" cap screws.

c. Mount the screws from the inside of the fryer with the nut on the outside. The nuts have lock washers attached to them, therefore it is not necessary to use lock washers.



d. When all four legs/casters are mounted, stand the unit up being careful not to put too much weight on any one leg/caster. Adjust the height and level the fryer by adjusting the leveling devices on the leg/caster with the water pump pliers.

e. On units with casters, move the fryer to the desired location and lock the wheels using the locking devices on the sides of the casters.

1.3.2 Heat Deflector Installation

You will find a removable label at the rear top edge of the unit. This label has instructions for positioning and installation of the heat deflector. Refer to the label and the instructions below to install the deflector.

a. Remove the two self-drilling screws from the top, back area of the cooker.

b. Position the heat deflector so that the angled portion of the deflector is facing toward the front of the fryer. Secure the heat deflector to the back of the unit using the sheet metal screws previously removed.

WARNING

DO NOT obstruct the flow of combustion/ventilation or air openings around the fryer. Adequate clearance around the fryer is necessary for servicing and proper burner operation. Ensure that you meet the minimum clearances specified in the installation instructions.

c. When properly installed the angled section of the heat deflector will extend over the flue opening to redirect the heat. It SHOULD NOT cover the flue opening. Nothing should block the flue opening as this will cause the fryer to overheat and produce dangerous gases.

1.3.3 Basket Lift Access

The basket lift mechanisms are installed at the factory and do not need adjustment. If it becomes necessary to gain access to the basket lift motors or linkage, the rear panel of the fryer must be removed. The motors do not require lubrication but the mechanism linkage may. Refer to the maintenance section for instructions on basket lift lubrication.

1.3.4 Assembling Multi Fryer Systems

If you purchased a multi-fryer unit it could be shipped in more than one piece. To assemble the unit follow the instructions below.

a. Unpack the units and move them close together. Remove the front panels and both heat shields from the fryers.

b. There are five joining strips to be attached to the units to make them into one system. These strips are attached in the rear, front, upper front, and the forward and rear caster mount. Use the screws supplied with your system to attach the strips. Secure them tightly to each unit.

c. Connect the filter return piping and the drain manifold. If possible test the pipes for leaks before completing the installation.

d. Replace the heat shield and front panels to complete the system assembly.

1.4 INSTALLATION

Although it is possible for you to install and set up your new fryer, it is STRONGLY recommended that you have it done by qualified professionals. The professionals that install your new fryer will know the local building codes and ensure that your installation is safe.

WARNING

The fryer must be properly restrained to prevent movement or tipping. This restraint must prevent the fryer from movements that would splash hot liquids on personnel. This restraint may be any means (alcove installation, adequate ties, or battery installation).

1.4.1 Installation Clearances

The fryer needs clearance around it for proper operation. Adequate clearances allow for servicing and proper burner operation. The clearances shown below are for cooker installation in combustible and non-combustible construction.

	Combustible Construction	Non-Combustible Construction	
Back	6"	6"	
Sides	6"	6"	
Floor - Combustible	6"	6"	(Needed for Combustion.)

In addition to the clearances required for proper fryer operation, there must be at least 28 inches of isle space in front of the fryer to remove/install the filter pan/module.

1.4.2 Gas Connection

Your fryer will give you peak performance when the gas supply line is of sufficient size to provide the correct gas flow. The gas line must be installed to meet the local building codes or National Fuel Gas Code (NFPA 54-1984) and ANSI Z223.1-1988 Latest Edition. In Canada, install the fryer in accordance with CAN/CGA-B149.1 or .2 and local codes. Gas line sizing requirements can be determined by your local gas company by referring to National Fuel Gas Code, Appendix C, Table C-4 (natural gas) and Table C-16 (propane). The gas line needs to be large enough to supply the necessary amount of fuel to all appliances without losing pressure to any appliance. Other factors that are used to determine the piping requirements are BTU requirements of the appliances being connected and the length of pipe between the meter (main shut off) and the appliances.

WARNING

NEVER supply the fryer with a gas that is not indicated on the data plate. Using the incorrect gas type will cause improper operation. If you need to convert the fryer to another type of fuel, contact your dealer.

1.4.2.1 Fuel Types - Each fryer is equipped to work with one type of fuel. The type of fuel with which the appliance is intended to operate is stamped on the data plate attached to the inside of the door.

WARNING

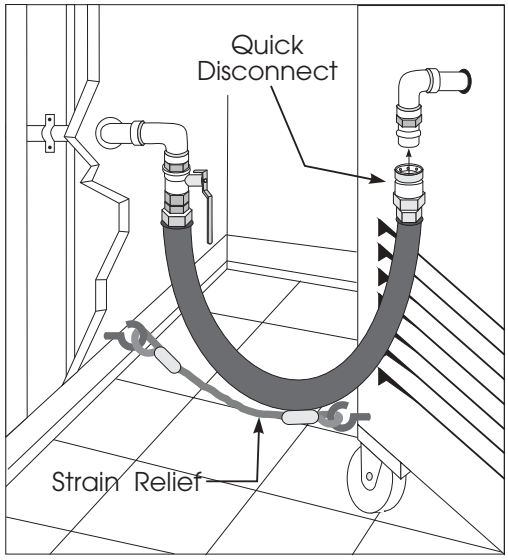
DO NOT use an open flame to check for gas leaks!

1.4.2.2 Gas Line Connection - Connect the fryer to the gas supply line with a connector that complies with the Standard for Connectors for Movable Gas Appliances (ANSI Z21.69-1987). If you are installing a fryer with casters use a quick disconnect refer to the Quick Disconnect installation instruction, 1.4.2.3. Connect the gas line to the fryer using a pipe joint sealant that is resistant to liquefied petroleum. If the fryer was disconnected during the fuel line testing, use a solution of soap and water to leak test the new connection.

NOTICE

NEVER use an adaptor to make a smaller gas supply line fit the cooker connection. This may not allow proper gas flow for optimum burner operation, resulting in poor cooker performance..

1.4.2.3 Quick Disconnect Gas Connection - Gas fryers equipped with casters must be installed with connectors that comply with the Standard for Connectors for Movable Gas Appliances, ANSI Z21.69-1987, and Addenda Z21.69A-1989. This connection should include a quick disconnect device that complies with the Standard for Quick Disconnect Devices for Use With Gas Fuel , ANSI Z21.41-1989. When installing a quick disconnect you must also install a means for limiting the movement of the fryer. This device will prevent the gas line or the quick disconnect from being strained. The restraining device should be attached to the cooker on the back panel as shown in the illustration. The quick disconnect, hose, and restraining device can be obtained from your dealer.



1.4.2.4 Fuel Supply Line Leak and Pressure Testing - The fuel supply system must be tested before the fryer is used. If the fuel line is going to be tested at a pressure greater than (>)1/2 PSIG (3.45 kPa), make sure that the fryer is disconnected from the fuel line. If the fuel line is to be tested at a pressure equal to or less than (≤) 1/2 PSIG (3.45 kPa), the fryer can be connected but the unit's gas valve must be shut. Test all gas line connections for leaks with a solution of soap and water when pressure is applied.

1.4.3 Electrical Connection

The electrical service used by the fryer must comply with local codes. If there are no local codes that apply, refer to the National Electrical Code (NEC) to install the service. In Canada refer to CSA Standard C22.1 and local codes. Wiring diagrams are provided inside the fryer control box. The power requirements for the fryer are shown below.

	North America	International
Input Voltage	120 VAC, 60Hz	220 (or 240) VAC, 50Hz
Current per fryer	0.5 Amps	0.5 Amps
Current per basket lift	1.8 Amps	1.0 Amps
UFM Filter System	7.0 Amps	4.0 Amps
Built-In Filter System	13.0 Amps	7.0 Amps

WARNING

The fryer is equipped with an oil proof, three prong (grounding) plug for your protection against electrical shock hazard in the event of equipment malfunction. DO NOT cut or remove the grounding (third) prong from this plug. This plug must be plugged into a properly grounded three prong receptacle.

1.4.3.1 Electrical System with UFM Filter System - The fryer has one power supply for the fryer controls and the filter module. The fryer must be grounded in accordance with local code; if there is not a local code, comply with NEC ANSI/NFPA No. 70-1990. It is advised that this power supply be plugged into a wall receptacle that is controlled by the ventilation control. This will prevent the fryer from being operated without the ventilator on. The UFM filter system also has a power cord which is plugged into the receptacle mounted in the fryer.

1.4.3.2 Electrical System with Built-In Filter System - The fryer has one power supply for the fryer controls only. The Built-In filter system is supplied with its own power cord (when the fryer does not need power). When the fryer has power, the filter is plugged into the fryer. The fryer must be grounded in accordance with local code; if there is not a local code, comply with NEC ANSI/NFPA No. 70-1990 (or most current). It is advised that this power supply be plugged into a wall receptacle that is controlled by the ventilation control. This will prevent the fryer from being operated without the ventilator on. This power cord is also a three prong cord for operator protection. This cord must be plugged into a three prong receptacle to ensure complete electrical malfunction protection.

1.4.4 Ventilation and Fire Safety Systems

Your new fryer must have proper ventilation to function safely and properly. Exhaust gas temperatures can reach as high as 1200°F. Therefore, it is very important to install a fire safety system. Your ventilation system should be designed to allow for easy cleaning. Frequent cleaning of the ventilation system and the fryer will reduce the chances of fire. Table 1-2 provides a list of reference documents that provide guidance on ventilation and fire safety systems. This table is not necessarily complete. Additional information can be obtained from the American Gas Association, 8501 East Pleasant Valley Road, Cleveland, OH 44131.

Table 1-2. Ventilation and Fire Safety References

Topic	Underwriters Laboratory Document	National Fuel Gas Code Document
Grease Extractor	ANSI/UL 710-1981	ANSI/NFPA 96-1987
Ventilation Hood	ANSI/UL 705-1984	ANSI/NFPA 96-1987
Filter Unit	ANSI/UL 586-1985 ANSI/UL 900-1987	ANSI/NFPA 96-1987
Types of Fire Extingushers and Detection Equipment		
CO_2	ANSI/UL 154-1983	ANSI/NFPA 12-1989
Dry Chemical	ANSI/UL 299-1984	ANSI/NFPA 17-1985
Water	ANSI/UL 626-1984	ANSI/NFPA 13-1989
Foam		ANSI/NFPA 11-1988
Sprinklers	ANSI/UL 199-1982	ANSI/NFPA 13-1989 ANSI/NFPA 13-1989
Smoke Detectors	ANSI/UL 268-1981	ANSI/FPA 72B-1986
Fire Detection Thermostats	ANSI/UL 521-1987	ANSI/FPA 72B-1986

Excessive ventilation causes drafts, which will interfere with the proper operation of the pilot and the burner. Leave at least 18 inches of open space between the fryer's flue vent opening and the intake of the exhaust hood.

CAUTION

Ensure that your ventilation system does not cause a down draft at the fryer's flue opening. Down drafts will not allow the fryer to exhaust properly and will cause overheating which may cause permanent damage. Damage caused by down drafts will not be covered under equipment warranty. NEVER allow anything to obstruct the flow of combustibles or ventilation exiting from the fryer flue. DO NOT put anything on top of the flue area.

NOTICE

NEVER connect the blower directly to the flue openings. The direct flow of air will cause poor temperature recovery, poor ignition, inefficient operation of the fryer, and could extinguish the pilot.

1.5 INITIAL ADJUSTMENTS

After your fryer has been installed as described in section 1.4, it needs to be adjusted to ensure that it will perform as designed. These adjustments must be performed by a **qualified person**. To perform these adjustment the following tools will be needed:

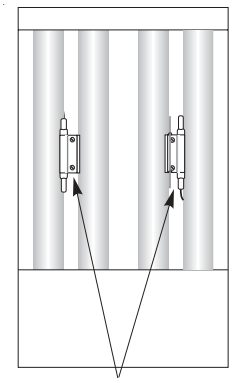
- Manometer (low pressure gauge)
- DC Millivolt Meter
- Digital Thermometer (Temperature probe)
- DC Micro Amp meter (for fryers with electronic ignition)

1.5.1 Visual Checks

Before you begin filling and adjusting the fryer, perform the following visual checks:

a. After the fryer is in its permanent location, lock the casters and check for levelness. Any additional leveling that is necessary can be performed as described in section 1.3.

b. Check the temperature bulbs (computer/high-limit), located in the fryer tank to ensure that the mounting screws are tight. The figure shows the probe typical location. Look down inside the fryer tanks to see the probes.



1.5.2 Burner Ignition Systems

CAUTION

Before going any further, fill the fryer with WATER. Water is used for the installation adjustments because the temperature will never exceed 212°F (100°C) thereby allowing plenty of adjustment time. Never let the water level go below the MIN LEVEL mark on the rear of the tank.

The model number of your fryer identifies which type of pilot ignition your fryer has. There are two basic types, pilot and electronic ignition. If your fryer model number has a "J" in it, you have an electronic ignition pilot ignition system. Determine which ignition system you have and refer to the directions below for that system.

WARNING

There is an open flame inside the fryer. The unit may get hot enough to set near by materials on fire. Keep the area around the fryer free from combustibles.

1.5.2.1 Lighting Instructions for Manual Pilot Lights - To light the pilot light refer to these instructions and Figure 1-2. The numbers in parenthesis refer to Figure 1-2 callouts.

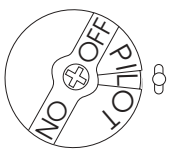
WARNING

Wait 5 minutes before attempting to relight the pilot to allow for any gas in the fryer to dissipate.

a. Open the gas supply valves to the fryer.

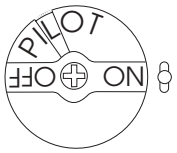
b. Open the fryer's door to gain access to the controls. Turn the thermostat control knob (1) counterclockwise to the OFF position.

c. Turn the Unitrol valve knob (2) to the PILOT position and push in on the knob. Hold the knob in for approximately one minute to purge the air out of the line. Hold a flame to the pilot light until the pilot (3) ignites. This may take a little while the first time you light the fryer because of air in the lines. Once lit, hold the knob in for approximately 60 seconds and then release.



d. If the pilot goes out wait 5 minutes and repeat step c. If after three tries the pilot will not remain lit, refer to the operator troubleshooting section of this manual.

e. Turn the tan knob (main burner gas knob) counterclockwise to the ON position.



f. Set the thermostat control knob to the desired temperature setting.

g. Turn the fryer ON/OFF/TEST switch (4) to the ON position. Fryers equipped with GS thermostats are started by rotating the thermostat knob out of the OFF position to the desired temperature. If the fryer is equipped with the optional melt cycle, place the switch in the MELT/ON position.

h. The main burner (5) will light and be controlled by the thermostat. The pilot burner will remain lit regardless of the switch position.

i. The POWER ON light (6) will be on and remain lit as long as the power switch is in the on position. The HEATING light (7) will be lit when the main burners are on. This light will cycle on and off to indicate main burner operation.

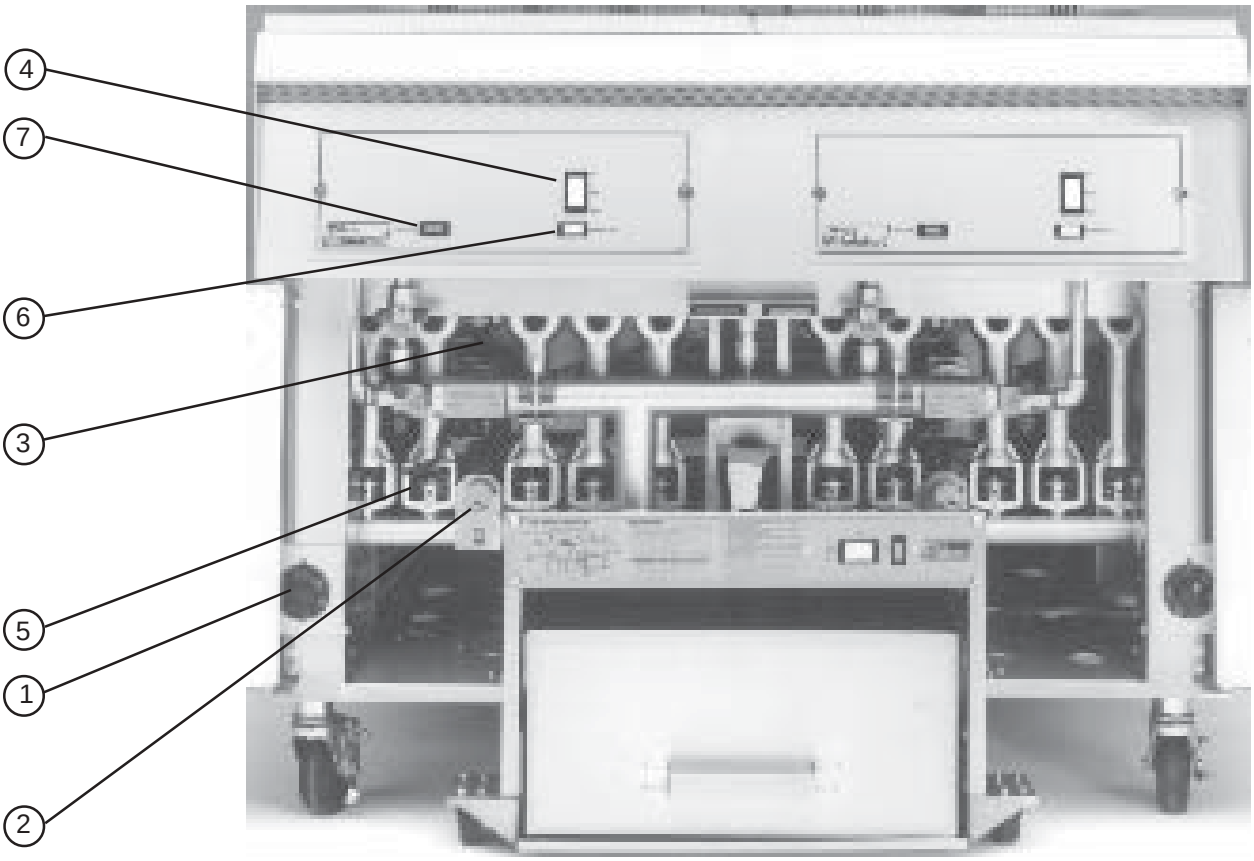


Figure 1-2 Inside View of Fryer

1.5.2.1.1 Pilot Flame Adjustment - The pilot flame should be adjusted to produce the proper millivolt output from the pilot sensing device. Millivolt output for the thermopile should be between 400 ± 50 millivolts. This procedure is only necessary on the manual pilot ignition system. Figure 1-3 shows the pilot assembly with examples of the incorrect and correct pilot size. Example A illustrates a pilot flame size that is too small to produce sufficient millivolt output. Example B is the correct size for proper millivolt output.

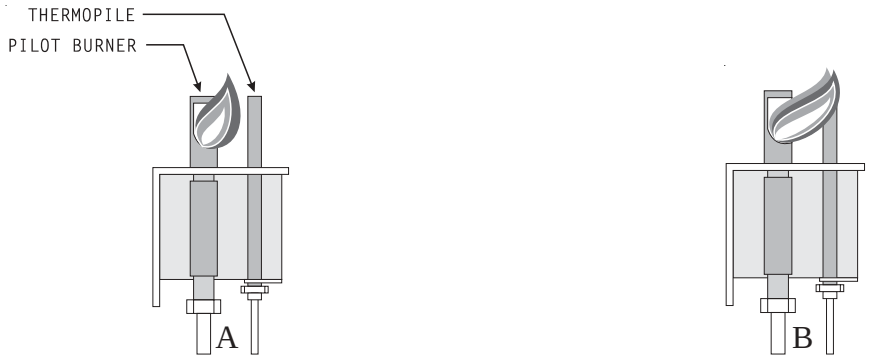


Figure 1-3 Pilot Assembly, Flame Adjustment

a. This test requires a DC millivolt meter set to a scale of 0-1000mv.

b. Locate the thermopile wires coming from the thermostat/High Limit box going to the gas shut off valve. The wire insulation size decreases near the gas valve connections.

c. Connect the negative (-) test probe to pilot bracket.

d. Connect the positive (+) test probe to to one of the High Limit terminal connections

e. Remove the pilot flame adjustment cover.

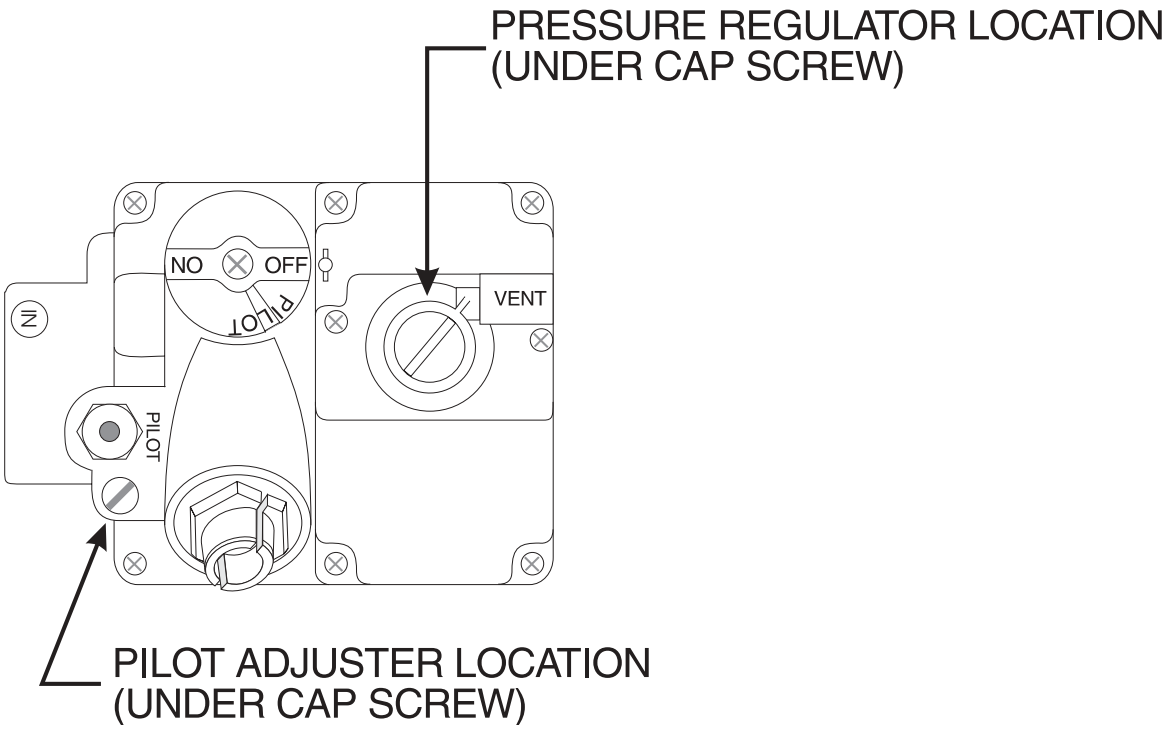


Figure 1-4 Gas Valve Showing Location of the Pressure Regulator and Pilot Adjusters

f. Turning the flame adjusting screw clockwise lowers the flame and the millivolt output. Turning the screw counterclockwise increases flame size and millivolt output.

g. Rotate the screw in the direction to achieve a reading of 400 ±50 mv for thermopiles.

NOTICE

Allow 3 to 5 minutes between flame adjustments to allow the reading to settle.

h. Replace the pilot flame adjusting screw cover.

1.5.2.2 Electronic Ignition Pilot Systems - There is nothing to manually light on the electronic ignition systems. The pilot ignition is controlled by the electronic pilot system.

a. Open the gas supply valves to the fryer.

b. Turn the thermostat control knob counterclockwise to the OFF position.

c. Turn the gas valve to the ON position.

d. Turn the fryer ON/OFF/TEST switch to the ON position. If the fryer is equipped with the optional melt cycle, place the switch in the MELT/ON position.

e. Turn the thermostat to the desired temperature setting.

f. The main burner will light and be controlled by the thermostat and the electronic pilot system.

g. The POWER ON light will come on and remain on as long as the power switch is in the ON position. The HEATING light will be lit when the main burners are on. This light will cycle on and off to indicate main burner operation.

1.5.2.2.1 Electronic Ignition Pilot Flame Adjustment - Figure 1-4 illustrates the pilot adjusting screw location.

a. This test requires that a DC milliammeter be connected between the flame sensor terminal and the flame sensor lead. Observe correct polarity, if the meter needle goes below 0 milliamps reverse the leads. The current reading must be 0.15 milliamps or greater.

b. Adjust the current reading to the required level by adjusting the pilot flame. Remove the pilot flame adjustment cover to expose the adjusting screw.

c. Turning the flame adjusting screw clockwise lowers the flame and the current. Turning the screw counterclockwise increases flame size and the current.

d. Rotate the screw in the direction necessary to achieve a reading of 0.15 mA or greater.

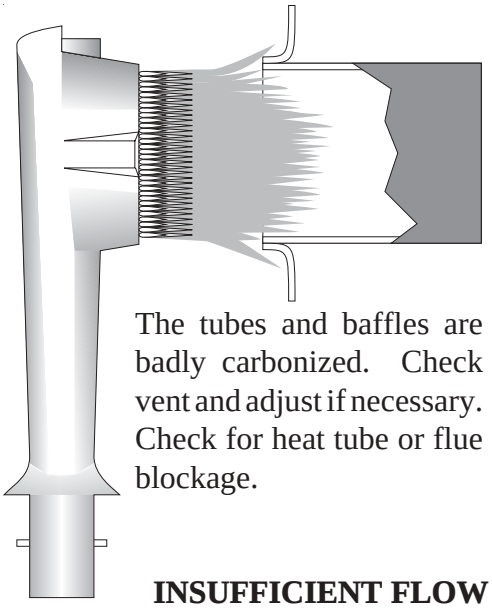
NOTICE

Allow 3 to 5 minutes between flame adjustments to allow the reading to settle.

e. Once the pilot flame is set, replace the pilot flame adjusting screw cover and remove the ammeter.

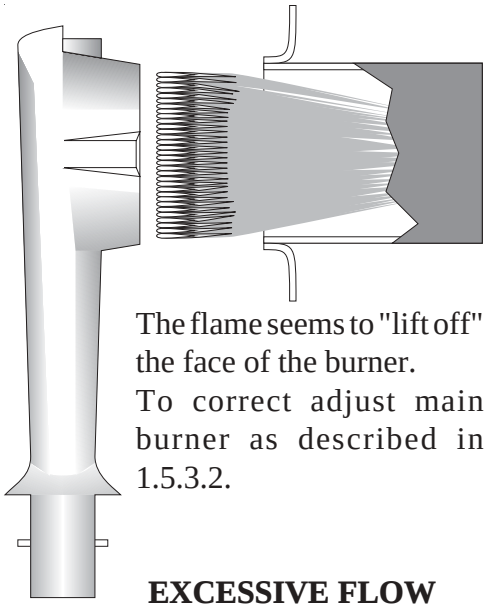
1.5.3 Main Burner System

For the burners to work the gas supply valve must be open and the main power switch must be on. The main burner receives gas from the main gas supply through the thermostatically controlled valve. When the thermostat is turned up the gas control valve opens. If you have a pilot light system, the pilot will ignite the burners. The electronic ignition system will create a spark to ignite the gas. After the burner system is operating, perform the burner adjustments in the following procedure. Figure 1-5 illustrates the different conditions possible for the main burner.



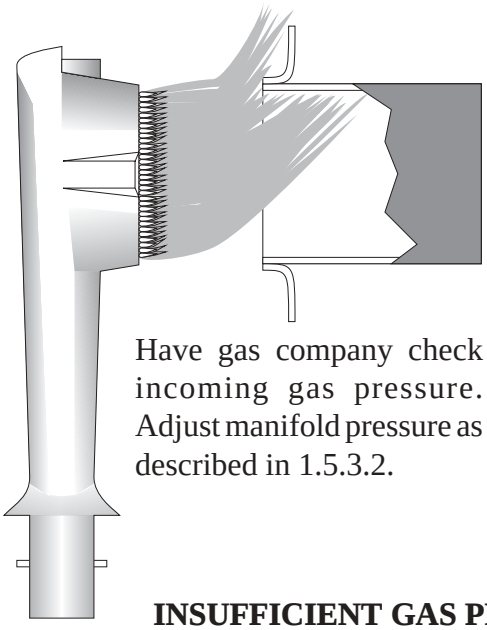
The tubes and baffles are badly carbonized. Check vent and adjust if necessary. Check for heat tube or flue blockage.

INSUFFICIENT FLOW



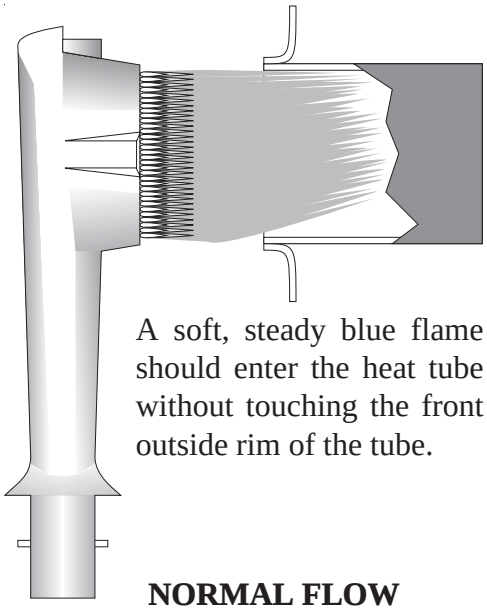
The flame seems to "lift off" the face of the burner. To correct adjust main burner as described in 1.5.3.2.

EXCESSIVE FLOW



Have gas company check incoming gas pressure. Adjust manifold pressure as described in 1.5.3.2.

INSUFFICIENT GAS PRESSURE



A soft, steady blue flame should enter the heat tube without touching the front outside rim of the tube.

NORMAL FLOW

Figure 1-5 Main Burner Conditions

1.5.3.1 Gas Line Requirements - A properly installed gas supply system will deliver 7.0 ±2.0" w.c. natural gas (12.0 ±1.0" w.c. LP) to all appliances connected to the line, operating at full demand.

NOTICE

Do NOT exceed 13.5" w.c. pressure as damage may occur to the gas valve.

1.5.3.2 Burner Adjustment - The burners must be adjusted to deliver optimum flame. Adjust the burner flame using the following procedure.

a. Ensure that the gas control valve is in the OFF position. Remove the manifold pressure tap plug and connect an accurate pressure gauge (range of 0-16" w.c. in 0.1" increments) or manometer.

b. Light the pilot burner (see 1.5.2) for the unit being tested and adjust the thermostat to light the main burners.

c. The installed pressure gauge reading should be the same, ±0.1", as that marked on the data plate inside the door. If the pressure is correct go to step e, if not, adjust the pressure.

d. To adjust the pressure, remove the regulator adjustment screw cover (see Figure 1-4). Use a flat tip screwdriver to adjust the screw until the proper pressure is reached. Turning the screw clockwise will increase the pressure, counterclockwise will decrease the pressure.

e. When the pressure is correct, install the regulator adjustment screw cover.

f. To remove the pressure gauge, turn gas control valve to OFF. Remove the gauge and install the pressure tap plug.

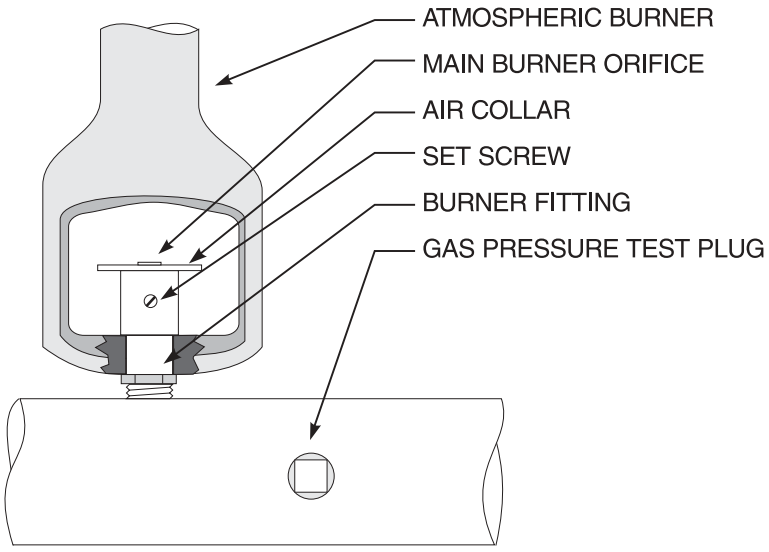


Figure 1-6 Air Collar

g. Now that the pressure is set for proper operation, set the main burner flame. Unlock the air collars by loosening the set screw for the collars. Turn the gas control valve to ON and turn thermostat to light the main burners.

h. Adjust the shape and size by raising or lowering the air collars to achieve a soft blue flame with well defined inner cones.

i. When the flames have been properly adjusted, lock the collars in place with the set screw provided.

1.5.4 INITIAL CLEANING

When the fryer is shipped, many of its parts are covered with a thin coat of oil for protection. Before the fryer is ready for cooking it must be cleaned. This will remove the oil coating and any foreign matter that may have accumulated during storage and shipment. Perform the cleaning as described below.

a. Fill the tank with water and add one packet of Pitco fryer cleaner or a mild detergent.

b. Turn the fryer on and set the thermostat to 200°F. Allow the fryer to heat for 15 minutes.

NOTICE

Do not leave the fryer unattended during cleaning. Never let the water level go below the "Min Level" mark on the back of the tank.

c. Using the fryer cleaning brush, scrub the inside of the fryer to remove protective coating.

d. When cleaning is complete, turn off the fryer main burners and turn gas valve knob to the PILOT position. If the fryer has electronic ignition turn the gas control valve to the OFF position. Drain the water into a container suitable for hot water and dispose of it.

e. When the tank has cooled, rinse it thoroughly with cool water. Continue to rinse the tank until the cleaner has been rinsed, thoroughly from the tank.

f. Using a clean dry cloth, wipe out all of the water. Be very thorough removing the water, because any residual water will cause hot oil to splatter out of the fryer.

CAUTION

Mild steel tanks must be wiped down/coated with oil to keep the tank from rusting.

g. Now that the tank is clean, you are ready to fill and operate the fryer. Refer to 2.1 for

instructions on adding shortening to the fryer.

1.5.5 Thermostat Calibration Check

NOTICE

Thermostat calibration requires that the temperature of the fryer be raised above boiling. Therefore, you will need to drain the water from the fryer and fill it with oil. Before removing the water, perform the initial cleaning of the fryer. Cleaning the fryer now will prevent you from having to drain the oil and refill with water later.

Filling the fryer with oil is described in 2.1. To perform the calibration check detailed below you will need a digital thermometer.

a. Place the tip of the thermometer in the shortening approximately 1" above the temperature sensors.

b. Set the thermostat at 325°F and wait for the temperature reading on the thermometer to rise. As the temperature rises toward 325°F watch the thermometer closely.

c. If the shortening temperature reaches 350°F and the burners DO NOT turn off, turn the thermostat down. Keep lowering the thermostat setting until the burners go out.

CAUTION

If the burners do not turn off at the lowest thermostat setting, the thermostat could be defective. Contact your ASAP representative.

d. Let the fryer cycle 4 to 6 times before checking the temperature. Compare the thermometer temperature against the thermostat setting. If the values are more than 5°F apart, calibrate the thermostat using the appropriate calibration procedure in this manual.

1.5.6 Thermostat Calibration

There are two types of thermostats that can be calibrated, a Robertshaw and a solid state. If the thermostat dial has temperature settings imprinted on it, it is a Robertshaw. The solid state thermostats have the temperature settings imprinted in the panel behind the dial. Both calibration procedures require the same initial setup outlined below.

a. Place the tip of the thermometer in the shortening approximately 1" above the temperature sensors.

b. Set the Thermostat to 325°F and wait for the temperature reading on the thermometer to rise.

c. Let the fryer cycle 4 to 6 times to ensure that the temperature has stabilized. Compare the thermometer temperature against the thermostat setting. If the values are more than 5°F apart, calibrate the thermostat using the appropriate calibration procedure.

1.5.6.1 Solid State Thermostats - Calibrating this thermostat is simply a matter of moving the thermostat knob to the correct temperature and tightening the set screw.

a. Loosen the set screw that holds the thermostat knob to the its shaft.

b. Rotate the thermostat dial without moving the shaft to the temperature indicated on the thermometer. Tighten the set screw on the thermostat dial to lock the dial in place.

c. Adjust the thermostat to a new setting and allow the fryer to cycle 4 to 6 times at the new setting. Check the thermometer temperature against the dial setting. If the temperature is ±5°F of the thermostat dial setting, remove the thermometer and replace the tube screen. If the temperature is greater than 5°F away from the dial setting, perform the above procedure again.

1.5.6.2 Electric and GS Thermostats - To calibrate this thermostat the dial must be removed from the shaft. The adjustment for the thermostat is inside the dial shaft.

a. Set the thermostat dial to 325°F.

b. Remove the thermometer dial by pulling the knob straight out. DO NOT rotate the dial.

c. Hold the outside of the shaft so it does not move. Use the tip of a small, flat tip screw driver to scrape away the sealing compound from the adjustment screw.

d. Turn the adjustment screw clockwise to lower the temperature setting and counterclockwise to raise the temperature. One quarter turn changes the temperature approximately 25°F.

e. Turn the adjustment until the burners turn on at 325°F. Replace the knob and allow the fryer to cycle 4 to 6 times. Check the temperature of the thermometer against the thermostat dial, if it is greater than 5°F difference repeat the calibration procedure.

f. When the calibration is correct, remove the thermometer and replace the tube screen.

1.5.7 High Limit Test

THIS TEST SHOULD BE PERFORMED BY QUALIFIED PERSONNEL ONLY

Fryers with the solid state or electric thermostats have a three position power switch , ON/OFF/TEST. The TEST position is used to perform the High Limit test. This test is not required for initial installations, but should be performed as soon as possible after the installation to verify that the high temperature shut off works.

CAUTION

This test causes the fryer to reach higher than normal temperatures that will spoil the shortening. Perform this test with shortening that will not be reused.

a. Place the tip of the thermometer in the shortening approximately 1" above the temperature sensors.

b. Press and hold the power switch in the TEST position. The temperature of the shortening will exceed the thermostat setting.

c. When the temperature reaches 450°F ±15°, the high limit switch will open and turn off the fryer. If the fryer does not turn off at 465°F, the high limit switch is defective and must be replaced. If the limit switch opens below 420°F, it is tripping to low and should be replaced.

d. After the limit switch trips, release the TEST switch and allow the shortening temperature to drop. Reset the limit switch after the temperature has dropped 50°F by pressing the reset switch. This will close the high limit switch and the fryer is ready to operate again.

e. Shut the fryer off and allow the oil to cool to 135°F before draining and cleaning the fryer.

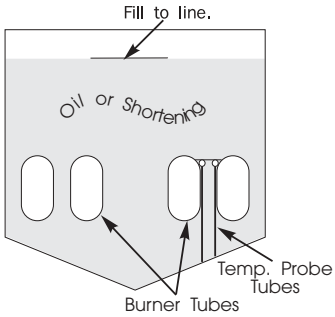
Chapter 2: Operating Instructions

This chapter describes how to operate your fryer to obtain the best performance. Included in this chapter are filling, operating, and cleaning instructions for gas fryers.

2.1 FILLING THE FRYER

Both liquid and solid shortening can be used in the fryer, but liquid is preferred. If solid shortening is used, it is recommended that you use the melt cycle feature (optional) to melt the shortening. You can melt solid shortening without the melt option, but you must carefully follow the instruction in section 2.2.2.

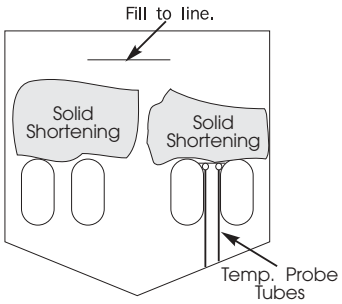
2.1.1 Filling the Fryer With Liquid Shortening



a. Make sure the drain valve is completely closed.

b. Fill the fryer with oil to the "Oil Level" line marked on the back of the tank.

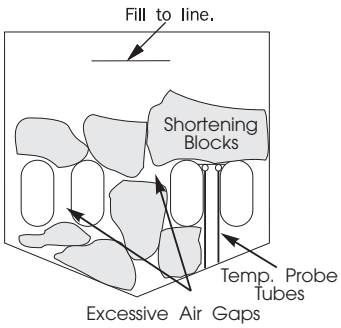
2.1.2 Filling the Fryer With Solid Shortening



WARNING

Never melt blocks of solid shortening on top of the burner tubes. This will cause a fire, and will void your warranty.

a. Make sure the drain valve is completely closed.



b. Remove the screen covering the tubes.

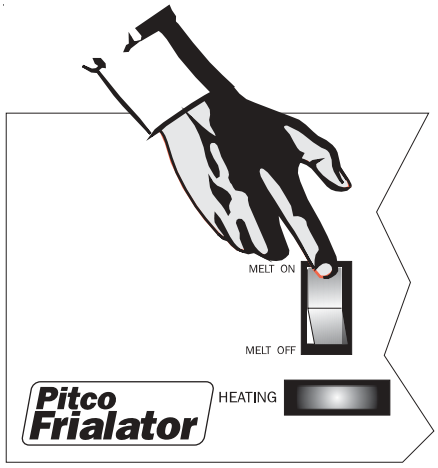
c. Cut the shortening into cubes no larger than 1". ALWAYS pack the shortening below, between, and on top of the burner tubes. DO NOT leave any large air gaps. Use care when packing the solid shortening in the tank. DO NOT bend or break the temperature sensor probes. If these are damaged the fryer will not function properly.

d. Once the fryer is packed with shortening, the shortening must be melted. To melt the shortening refer to the Fryer Start-Up section for your fryer.

2.2 MELTING SOLID SHORTENING

Fryers equipped with a melt cycle feature will automatically melt the shortening. If your fryer does not have a melt cycle, follow the manual procedures in section 2.2.2.

2.2.1 Automatic Shortening Melting



a. Place the Melt Cycle ON/OFF switch in the ON position.

b. Place the fryer ON/OFF/TEST switch in ON.

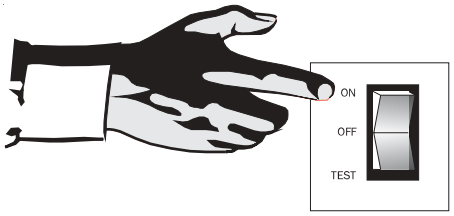
c. The fryer will cycle the burner on for 4 seconds and remain off for 30 seconds. This will heat the shortening slowly to 150°F (65°C). At 150°F the burners will remain on constantly until the shortening reaches the thermostat setting.

d. The Melt Cycle switch can be left ON after reaching normal temperature. The fryer is now operating normally and ready to use.

2.2.2 Manual Shortening Melting

NOTICE

The melting procedure below requires the manual cycling of the fryer. Watch carefully for smoke. If smoke is noticed, the shortening is scorching. To prevent this, decrease the time you leave the burners on.



a. Place the fryer ON/OFF/TEST switch in ON for 4 seconds.

b. Place the fryer ON/OFF/TEST switch in OFF for 30 seconds.

c. Continue cycling the ON/OFF/TEST switch until most of the solid shortening is liquefied and the temperature reaches 150°F. At 150°F leave the ON/OFF/TEST switch in the ON position. The burners will remain on constantly until the shortening temperature reaches the thermostat setting.

d. Once at temperature, the fryer is now operating normally and ready to use.

2.3 OPERATING INSTRUCTIONS - WITHOUT A COMPUTER

To ensure the food always comes out the very best, follow the preparation instructions for the food you are cooking. Using the best shortening makes the best fried foods. The best shortening will last longer than lower grade shortening and save you money. When not in use the shortening should be cooled and covered to prevent contamination.

CAUTION

The fryer has been installed using restraining devices to prevent accidential tipping or movement. Do not attempt to move the fryer when it has hot liquid in it. Splashing hot liquids can cause severe burns.

WARNING

Water and shortening DO NOT mix. Keep liquids away from hot shortening. Dropping liquid frozen food into the hot shortening will cause violent boiling.

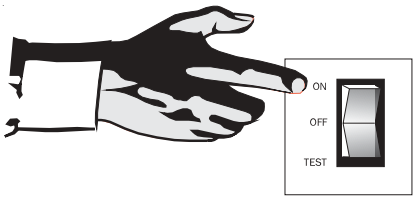
2.3.1 Fryer Start-Up

DO NOT START FRYER WITHOUT FILLING WITH OIL!

a. Light the pilot light as described in section 1.5.2.

b. Turn the temperature control knob (thermostat) to the desired temperature setting. This knob is located behind the front doors or on the front control panel.

c. On fryers with solid state or electric controls, turn the fryer ON by pressing the ON/OFF/TEST button. The POWER ON light and the HEATING light will come on. The HEATING light cycles with the main burners. If you have the melt option, place the melt option switch in MELT ON. If the temperature is less than 150°F, the burners will come on and cycle until the temperature reaches 150°F.



2.3.2 Automatic Basket Lifts (OPTIONAL)

Before using the basket lifts, ensure that the shortening is up to normal operating temperature.

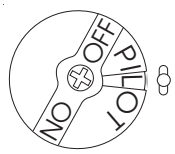
a. Set the timer to the desired time and press the center button and release. The basket will lower into the shortening. When the time is up, the basket will automatically rise out of the shortening.

b. The timers for each fryer can be set independent of each other to allow for greater frying flexibility.

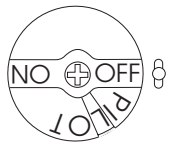
2.3.3 Fryer Shut-Down

There are two shutdown modes of fryer operation, STANDBY and COMPLETE. The standby mode removes the ability for the fryer's main burners to cycle. Complete shutdown turns off the gas supply to the fryer. Shut down the fryer by:

STANDBY Turn the thermostat to OFF. Depress and turn the gas valve clockwise to the PILOT position (if fryer has an electronic ignition turn the gas valve to the Off position). Place the ON/OFF switch in the OFF position (if used). The cooker is now in Standby and can remain this way for only brief periods of time. NEVER leave the cooker in standby overnight.



COMPLETE To completely shut down the cooker, turn the gas valve counterclockwise to the OFF position and turn the power switch off (if used). The fryer is now completely shut down and can be cleaned and filtered.



2.3.4 Power Failure

NOTICE

No Attempts should be made to operate the fryer during power outages.

If power is removed from the fryer for any reason during operation, the unit will shutdown. Wait five minutes after power is restored before restarting the fryer. This will give any gas fumes in the burner time to disipate. To restart the unit, follow the Start-up procedure as you normally would.

2.4 OPERATING INSTRUCTIONS - WITH A COMPUTER

Always observe the safety precautions described in the front of this manual before operating this fryer. Because fryer operation is controlled by the computer, start-up and operation is very easy. The instructions below describe how to operate the fryer to perform daily fryer operation. Detailed programming instructions are provided later in this chapter in section 2.5.

2.4.1 Fryer Start Up

a. Light the pilot light as described in section 1.5.2.

NOTE

If your fryer has electronic ignition, the computer will light the pilot automatically.

b. The fryer power switch is inside each fryer's front door. Press the ON side of the power switch to start the fryer. The main burners will light and the computer takes over control of the fryer.

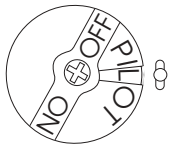
2.4.2 Product Selection

Place the product in the fryer basket being used and press the numbered key for the product. Place the basket in the tank. Once pressed, the display on the computer console will change to show cooking time for the product.

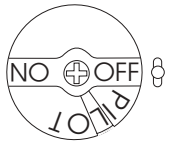
2.4.3 Shutdown

There are two shutdown modes of fryer operation, STANDBY and COMPLETE. The standby mode removes the ability for the fryer's main burners to cycle. Complete shutdown turns off the gas supply to the fryer. Shut down the fryer by:

STANDBY Turn the thermostat to OFF. Depress and turn the gas valve clockwise to the PILOT position (if fryer has an electronic ignition turn the gas valve to the Off position). Place the ON/OFF switch in the OFF position (if used). The cooker is now in Standby and can remain this way for only brief periods of time. NEVER leave the cooker in standby overnight.



COMPLETE To completely shut down the cooker, turn the gas valve counterclockwise to the OFF position and turn the power switch off (if used). The fryer is now completely shut down and can be cleaned and filtered.



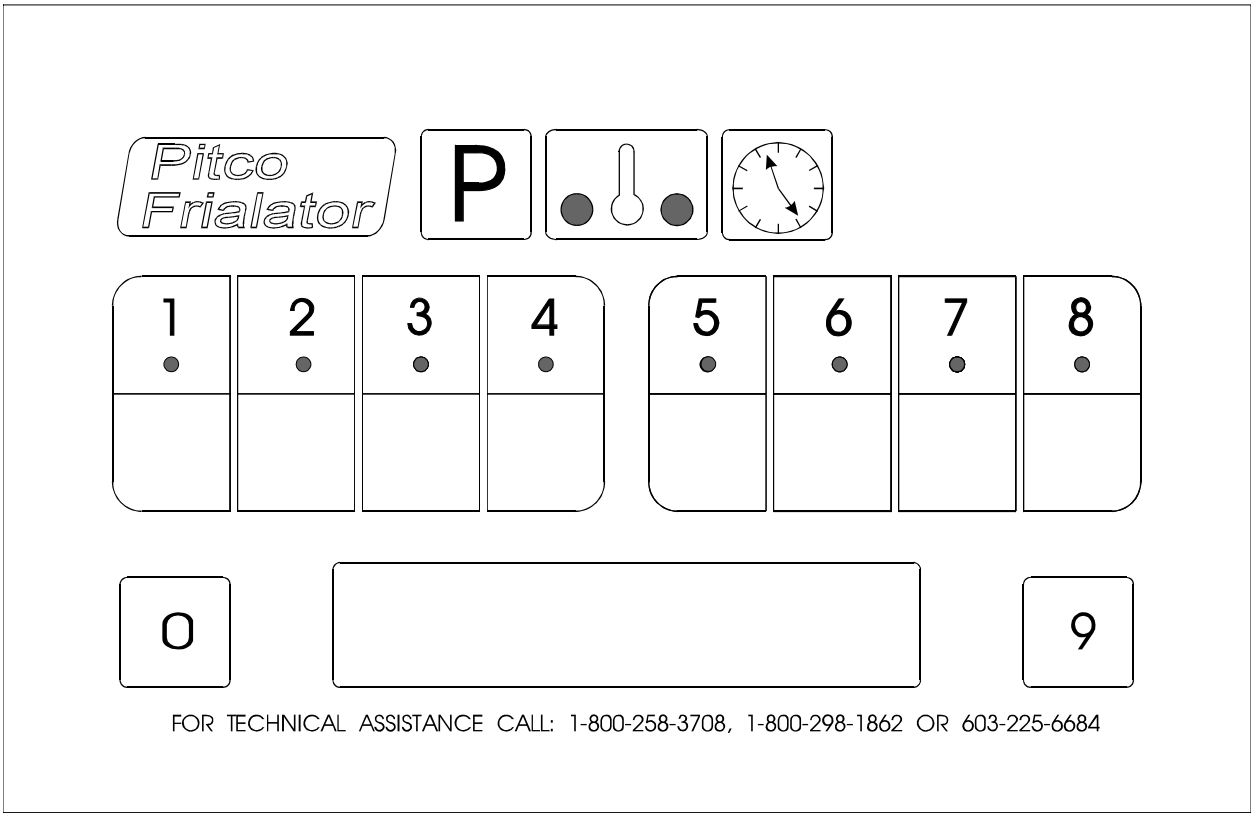
2.4.4 Power Failure

NOTICE

No Attempts should be made to operate the fryer during power outages.

If power is removed from the fryer for any reason during operation, the unit will shutdown. Wait five minutes after power is restored before restarting the fryer. This will give any gas fumes in the burner time to disipate. To restart the unit, follow the Start-up procedure as you normally would.

2.5 THE INTELLIFRY COMPUTER



This section describes how to program the Intellifry computer. The computer monitors and controls the entire operating cycle of both frying baskets. The controls on the left of the control panel are for the left fry basket, and the right basket is operated from the controls on the right. The illustration below shows the Intellifry Multi Product computer control panel.

Your computer is fully programmable to satisfy all of your frying needs. To ensure proper product preparation, always refer to in house guidelines for cooking when changing the program. Each of the programmable features are described in the following paragraphs.

NOTE

When programming the features of the computer, programming information will be displayed in the corresponding display window except on the Model I8.

Melt Cycle. The melt cycle of the fryer is used to soften and melt solid shortening. This is important to prevent scorching and extend the life of the shortening. During the melt cycle the heat is pulsed until the temperature of the shortening reaches 160°F. Once the temperature reaches 160°F the fryer switches to the constant (full) heat mode. The fryer comes from the factory with the melt cycle turned on.

Cook Time. The cooking time for a product can be changed to meet the needs of any recipe. The time set for a product is the time necessary at the SET temperature to cook the product. The Intellifry computer will compensate for any change in the shortening temperature by increasing and decreasing the cooking time. For this reason, when a product is cooking the time displayed is elastic time, not actual time. When you put a product in the tank and start the timer, the shortening temperature will drop. The computer senses this drop and extends the cook time to ensure that the product will receive the proper cooking time.
Shake Time. An alarm will sound at a preset time to tell you to stir or shake the product. DO NOT lift the product out of the shortening.
Temperature. The shortening temperature for each fryer is set separately and maintained by the computer. Only one SET temperature is allowed in each computer, so products being cooked in the left side must be cooked at the same temperature as the right side.
Boil. The Intellifry computer has a special boil mode program built into it. This program temperature cannot be reset. The boil mode will raise and hold the temperature of the fryer at 195°F. To enter the boil mode simply start the fryer as normal, the computer will sense that the water in the fry tank has reached 212°F and is not increasing. At this time the computer will display "BOIL" and lower the temperature to 195°F. The boil mode is exited by turning the fryer ON when there is oil in the fry tank. The computer will sense that the temperature has risen above 212°F and continue to het normally. Boil mode is used during weekly cleaning of the fryer described in the maintenance section of this manual.
Computer or Probe Failure. If there is a probe(devise use for sensing the temperature of the oil in the fry tank) failure or a problem with the computer, temperature control will automatically transfer to the auxiliary thermostat. The transfer is controlled by the computer and a transfer relay. If, for any reason, the relay becomes de-energized, temperature control will transfer to the auxiliary thermostat. Once the problem has been corrected, (the computer senses that the problem has been corrected or the power is restored to the transfer relay) temperature control will transfer back to the computer.

2.5.1 Checking the Temperature functions and Cooking times.

To check the ACTUAL temperature press the once.

To check the SET temperature press the key two times. After 5 seconds the display will return to normal.

To check the COOK, SHAKE and HOLD times press the followed by the product key you wish to check. The times will be displayed in sequence followed by a short pause, finaly returning to the normal cook mode.

When the computer is calling for heat the two lights in the lower corners of the key will illuminate.

2.5.2 Programming Cook Time, Shake Time and Hold Times.

To set the COOK time press the key then the key. Enter the desired product key and change

the desired time by using the numbered keys. Press the key to set the corresponding SHAKE time using the numbered keys. Press the key to set the corresponding HOLD time using the numbered keys. Pressing the P key two times at any point during this proceedure will return you to the normal cook mode.

2.5.3 Programming Cooking Temperature

This setting determines the thermostat setting for the computer. Unlike conventional thermostats, once the computer is set it will never need calibration. Set the desired temperature by performing the following procedure.

Press the P key followed by the key. The new COOK temperature may now be set using the numbered keys. Pressing the P key two times at any point during this proceedure will return you to the normal cook mode.

2.5.4 Level 2 Programming.

There are several features that merit mention at this point. Their programming functions are explained along with their descriptions.

To enter the level 2 programming mode press the P key followed by the 0 key. If a password has been set you will be asked to enter it, if you do not remember what the password is use "6684". This will allow you to program these basic functions and reset the password.

To choose between "°F" or "°C" press the 1 key and use the 0 key to toggle between the options.

To set "PASSWORD REQUIRED" or "NO PASSWORD" press the 2 key and use the 0 key to toggle between the two options. To set a new password press the P key and enter a four digit password. Press the P key again and the display will return to the normal cook mode. To continue setting level options in the level 2 programming you must re enter to level 2 programming mode in the same manner as before.

To set the beeper volume press the 3 key and use the 0 key to toggle between the options.

To set the Language option press the 4 key and use the 0 key to toggle between the options. At the time of printing the only language option available is SPANISH (ESPANOL). When a language option has been set the display will show in that language.

Pressing the P key two times at any point during this proceedure will return you to the normal cook mode.

To set the melt cycle option press the 5 key and use the 0 key to toggle between the three options available. Solid shortening melt cycle (MELT S), Liquid shortening melt cycle (MELT L) or no melt cycle (NO MELT). It is highly recommended that a melt cycle is used to ensure longevity of oil and fryer.

To view the recovery test data press the 6 key followed by any numbererd key to view the stored data. Each time the fryer heats through the temperature range of 250°F - 300°F it records (in seconds) the time it took and stores it as recovery data. This data can be recorded when the fryer is new and viewed again at a later date to see wether the fryer is performing correctly.

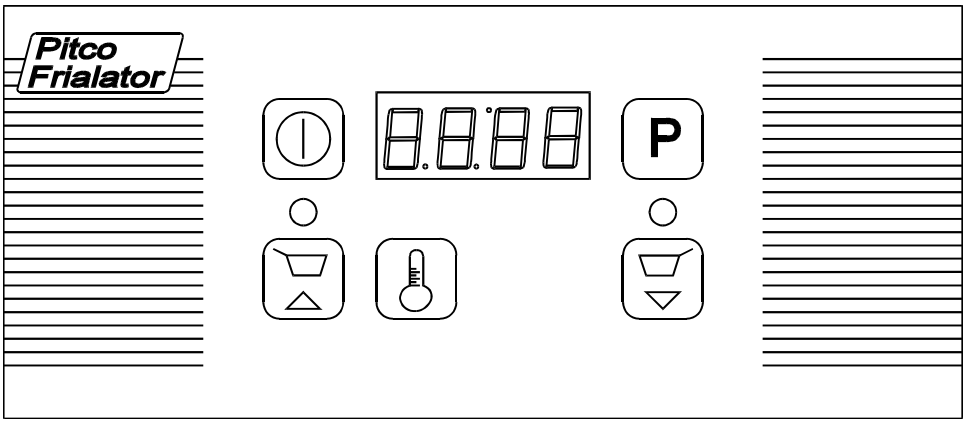
To set the control mode press the 7 key and use the 0 key to toggle between the options. The computer may be set in a "CONTROL" mode for total computer control or in "TIMER" mode where the Auxiliary Thermostat will control the temperature of the oil and the computer will act as a timer.

To exit the level 2 programming mode at any time press the P key two times. This will return you to the normal cook mode.

2.6 The Digital Control

The Pitco Digital Controller has been designed to take the place of the standard Solid State Thermostat. It provides the operator with more functions than the Solid State without giving the operator all of the features of an Intellifry Cooking Computer.

2.6.1 Operating the Digital Controller



Below is listed the control functions of the Pitco Digital Controller:

Press the ⏻ key to turn the control ON. Press and hold the ⏻ key for 3 seconds to turn the control OFF.

Press the ▲ or the ▼ key to start the Left or Right timers.

Press the 🌡 key to display the ACTUAL Temperature. Press the 🌡 key a second time to display the SET temperature.

2.6.2 Programming the Digital Control

Press the P key to enter the program mode.

Once the program mode has been entered the display will show the LH Timer setting 300. An adjustment may be made by using the ▲ or ▼ keys.

Press the P key again and the display will allow you to change the RH Timer setting by using the ▲ or ▼ keys.

Press P again, the display will show 350F and the Set Temperature may be changed by using the ▲ or ▼ keys.

Press P again, the display will show CH S and the Melt Cycle Options may be selected by using ▲ or ▼ keys. S may be selected to allow for a mild Melt Cycle needed for Solid Shortening. L may be selected to allow for a more aggressive Melt Cycle needed for Liquid cooking media. O may be selected to bypass a Melt Cycle.

Press P again, the display will show ULoC or LoC and the Password option may be set by using ▲ or ▼. If a Password Required option is programmed the Password will be ▲▲ then ▼▼ and is not adjustable.

Press P again, the display will show F or C and the Fahrenheit or Celcius option may be chosen by using ▲ or ▼ keys.

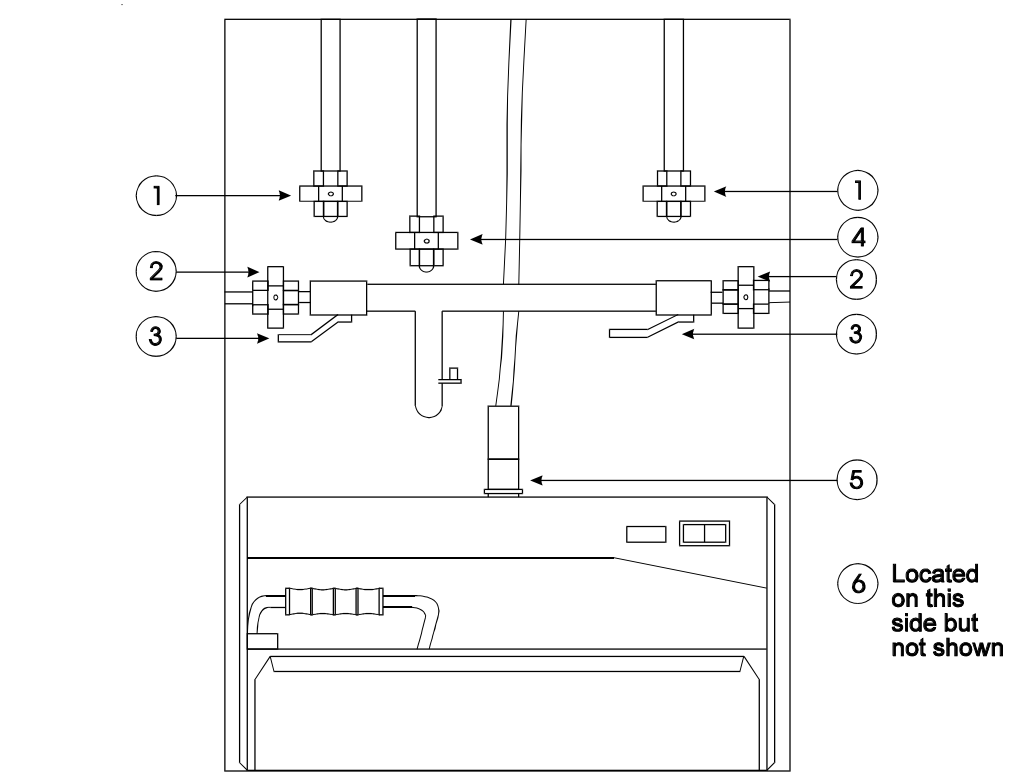
Press P again and the display will return to the LH Timer setting. To exit the Programming mode at any time, press and hold P for three seconds.

<u>The following messages may also be seen in the display:</u>

drop indicates the fryer is ready for cooking. HEAt indicates the controller is in the heating mode. CH indicates the controller is in a Melt cycle. . indicates the controller is outputting a heat signal.

2.7 SHORTENING FILTER PROCEDURES

This section describes the procedures used to filter fryers using either the UFM or built in filter units. Figure 2-1 shows the locations of the components used in the filter process. The fryer in Figure 2-1 is a UFM filtered unit. The callouts in the figure point to the components discussed in the filter procedure. These component locations should be representative of either filter system. Figure 2-2 shows the filter accessories and tools you should have to perform normal filtering operations. The components and accessories are described after Figure 2-2. The illustrations used with the filter procedures are provided to show where the oil is going and which valves are open. Frequent filtering of your shortening will prolong the shortening's usable life. Daily shortening filtering is strongly recommended.



NOTE
See Maintenance Section for Filter Operational Information.

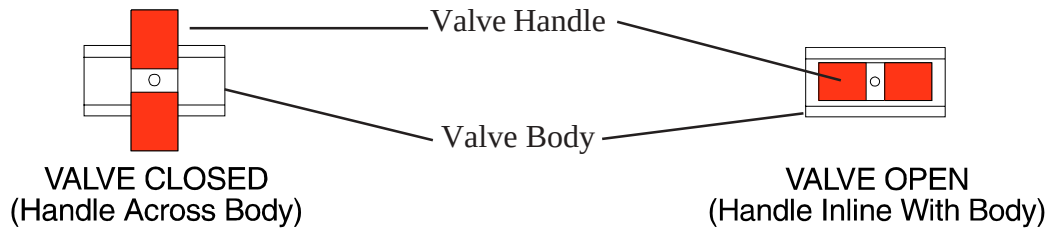


Figure 2-1 Fryer Illustrating Filter Components

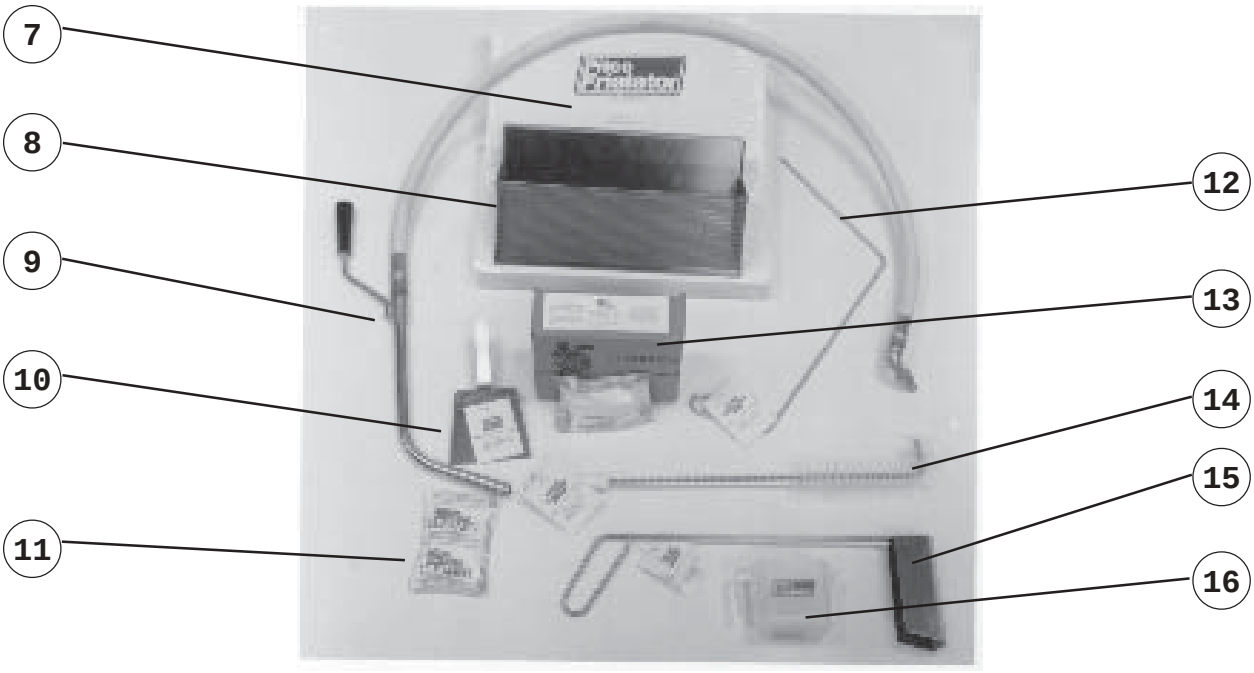


Figure 2-2 Filter Tools and Accessories

(1) Return Valve(s) RED - When open, with the filter pump on, allows the shortening to return to the fryer tank.

(2) Circulation Valve(s) BLUE - (Most machines are NOT equipped with these.) When open, with the filter pump on, circulates the shortening from the filter pan through the drain pipe and back to the filter pan. Circulating the oil polishes the oil and clears the drain piping.

(3) Drain Valve(s) GREEN - Drain the oil from the fryer tanks to the filter pan.

(4) Flush Hose Connection YELLOW - Quick disconnect and valve for optional flush hose.

(5) Oil Return Connection - Quick disconnect for return oil from the filter unit to the fryer. Simply push down on fitting to connect. Lift up lower black collar to disconnect.

(6) Filter Unit Cord - Provides electrical power to the filter unit.

(7) Filter Paper - Package of pre-cut filter paper.

(8) Filter Crumb Catch - Mounts in the filter pan and catches large debris during filtering.

(9) Flush Hose (OPTIONAL) - Attached to the filter piping (4), this hose and nozzle is used to flush out the fryer tank. This hose is an optional item.

(10) Filter Crumb Scoop - Short handle wide pan design, this scoop is used to remove the debris from the filter pan.

(11) Cleaner - Used during fryer boil-out cleaning.

(12) Drain Clean Out Rod - Long handled design, this tool is used to clean out the drain openings.

(13) Precoat Filter Aid - Coarse Diatomaceous earth used to enhance the filter ability of the filter media.

(14) Cleaning Brush - This long handled stiff bristle brush is used to brush down the crumbs inside the fryer tank during shortening filtering.

(15) Fryer Crumb Scoop - A specially designed long handle scoop for scooping out the fryer. The scoop section is narrow enough to fit down between the fryer burner tubes.

(16) Precoat Measuring Cup - Marked in ounces for correctly measuring precoat to be added to the shortening prior to filtering.

WARNING

At operating temperature the shortening temperature will be greater than 300°F. Extreme care should be used when filtering operating temperature shortening to avoid personal injury.

2.7.1 General Filter Hints

1. Ensure that all oil in the filter pan is returned before it cools and hardens. This is very important if you are using solid shortening.

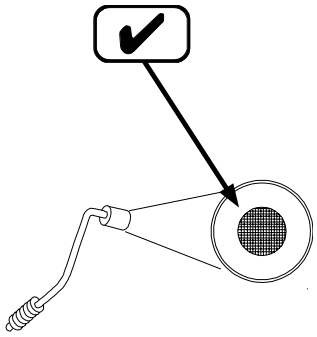
2. Always use **Pitco Precoat**® for fastest filtrations, maximum labor saving, and cleanest/clearest shortening possible. Impaired filter performance will result without the use of a filter aid.

3. The longevity of your oil is related to how clean you keep it. With a Pitco built in system, it is easy to do a quick drain/refill anytime. By removing suspended particles often, it prevents them from burning.

4. When the time it takes to refill the fryer after filtering exceeds the time shown below, scrape the filter bag or paper. If scraping does not bring the refill time back down change the filter paper as described in 3.1.1 (UFM) or 3.1.2 (Built in).

Model	Refill Time
7	2:00 Minutes
14 (all models)	3:00 Minutes
18	5:00 Minutes

4a. On UFM filter units the filter pump is protected from clogging by a special screen in the pickup tub. Clean this screen each time a new filter is installed (see Chapter 3, 3.3.1 step f)



5. Built-In Systems - Disconnect the filter pan hose after filtering to allow the hot shortening to drain.

6. Flush Hose (Optional) - If your fryer has a flush hose allow it to drain completely before storing.

7. If you have filter system problems refer to section 3.7.2 for built-in filters and 3.7.3 for UFM filters.

8. Always check to ensure that the black quick disconnect (oil return line) is completely engaged before filtering. When connecting the quick disconnect, you will feel a definite snap and hear a click when the connection is made. After connecting the hose, gently pull on the connection to make sure it is connected.

9. The filter power **MUST** be plugged into the fryer at all times.

10. Purge the filter lines by allowing the filter pump to run 15 seconds after air bubbles are seen inside the fryer tank.

2.7.2 Filter Procedures: Numbers in parenthesis refer to Figures 2-1 and 2-2.

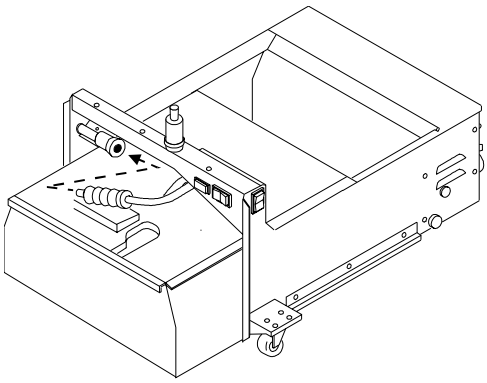
NOTICE

- When working with hot oil ALWAYS wear oil-proof, insulated gloves.
- Although there are differences between UFM and Built-In filters, the process used to filter the fryer is the same.

NEVER

- Run the filter system without a filter bag/paper.
- Attempt to filter more than one fryer tank at a time.
- Empty the oil from the fryer before turning OFF the fryer burners.
- Store the UFM Filter Unit anywhere other than in the fryer filter cavity.

a. Disconnect the filter pan, slide it out and empty the crumb basket. Scrape previously filtered residue off the filter paper. Examine the filter bag for dark, scuffed, or torn areas. Refer to 3.1.1 for filter bag replacement instructions for UFM filters. Refer to 3.1.2 for built in filter paper replacement procedures. Re-install the pan.



b. Turn the fryer OFF (See Standby Shutdown). Remove the baskets from the fryer tank(s). Use the clean out rod (12) to lift out the tube screens. If there are excess crumbs in the fryer tank, remove them with the crumb scoop (15).

c. If you have replaced or scraped the filter paper, stir in Precoat Filter Aid (13) to the shortening in fryer (2 cups for a Built-In filter #14 and ll UFM filters, 3 cups for a Built-In filter #18). After cleaning out the excess debris with the fryer scoop (15) sprinkle the powder into the first fryer to be filtered and stir the powder into the oil.

d. Check the drain spout to ensure that it is aimed into the filter pan.

NOTICE

Always open a system valve before starting the filter pump.

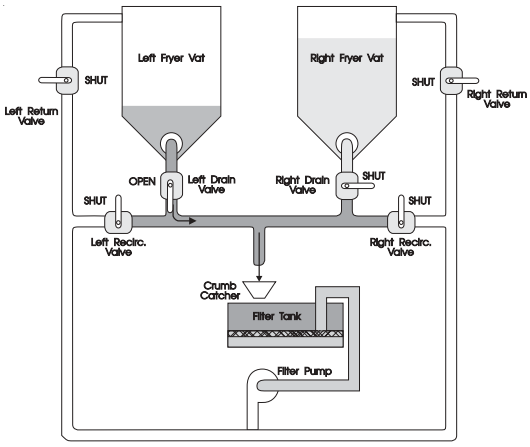
e. Slowly open the green handled drain valve (3) for the tank being filtered. If necessary use the clean-out rod (12) to clear the crumbs from the drain. Use the long handled brush (14) to clean the sides of the tank as the oil drains. If you have the optional flush hose (9) go to step i.

CAUTION

The filter tank can only hold the oil from one fryer. DO NOT try to filter more than one fryer at a time.

CAUTION

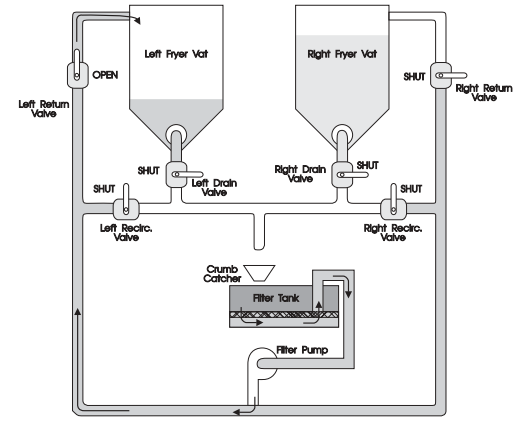
NEVER turn on the filter pump unless the PRE-HEAT FINISHED light (5) is on.



DRAIN MODE

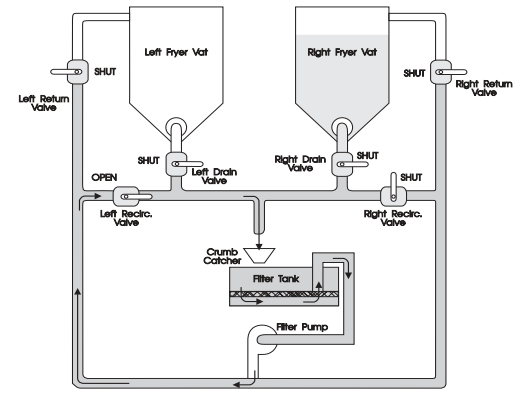
f. Open the red handled return valve (1) to the tank you are filtering. When the tank is empty close the green drain valve (3) and turn on the filter pump. As the tank fills, brush the inside of the tank to remove crumbs.

g. When bubbles are seen coming out of the oil return spout turn off the pump. Open the green handled drain valve (3) and allow the tank to drain again. Repeat steps b through d until the tank is clean.



RETURN MODE

h. When the tank is clean, drain the shortening by opening the green handled drain valve (3). Allow the shortening to circulate for approximately 2 minutes by returning oilto the fry tank while it is still draining. This polishes the shortening and cleans out the filter lines.



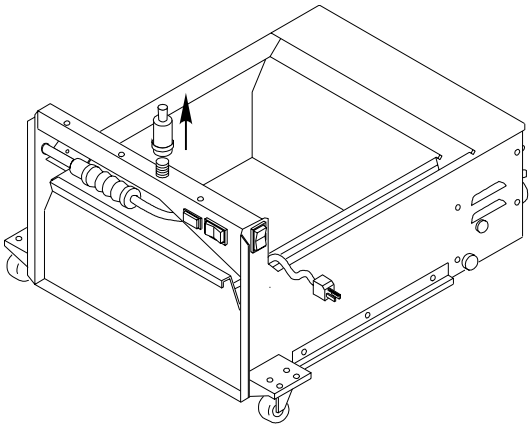
CIRCULATE MODE

i. OPTIONAL FLUSH HOSE (9) - Connect the flush hose to the quick disconnect (4). Direct the flush hose nozzle into the tank being filtered. Open the green handled drain valve (3), the yellow handled flush hose valve, and start the pump. Continue to rinse until all the debris has been removed from the tank. Turn off the pump and allow the tank to drain to the filter. Close the yellow handled flush valve and disconnect the flush hose.

j. Turn the pump off, close the green handled drain valve (2), and replace the tube screen. Open the red handled return valve (1) and turn on the pump to refill the fryer with the filtered oil. Continue to run the filter pump until bubbles come out the oil return opening. Turn the pump off and close the red handled return valve (1). If necessary add more shortening to the tank to return the shortening level to at least the minimum level mark. The fryer is now ready for use.

2.7.3 Using The UFM Module As A Portable Filter

The UFM filter system, when used with the filter unit flush hose part # B6623201, can be moved around the kitchen to filter individual fryers. To filter other fryers follow the procedure below:



a. Unplug the power cord from the fryer and disconnect the quick disconnect from the top of the filter unit.

b. Move the filter unit to the appliance to be filtered. Attach the flush hose to the filter unit quick disconnect. Plug the filter unit cord into a three prong (grounded) outlet using a 3 prong (grounding) 14 AWG extension cord.

c. Remove the filter pan lid and direct the appliance oil drain into the crumb catch. Use a drain extension connected to the fryer drain valve to allow the drain to extend over the filter pan. Be sure to wait for the Preheat Finished light to come on before turning on the pump.

d. When finished filtering, disconnect the flush hose and empty it into a fryer. Hang the hose, nozzle down, to drain.

2.8 DAILY CLEANING

Your fryer should be cleaned every day to maintain peak performance and appearance. Perform the procedures below every day.

a. Wipe up any shortening that spills onto the exterior of the fryer. This should be done with a clean soft cloth while the oil is still warm.

b. Use warm water with a mild detergent to clean surfaces. Be careful not to get water in the shortening and to remove any detergent from the fry tank.

c. Use a non-abrasive scouring powder or pad to clean stains if necessary.

d. Perform the weekly boil out cleaning of your fryer described in section 3.2.

Chapter 3: Owner Maintenance and Adjustments

This chapter provides you with the information and procedures necessary to perform basic fryer maintenance and adjustments. If after performing maintenance on your fryer it does not perform properly, contact your authorized service center.

WARNING

The power supply must be disconnected before servicing or cleaning the appliance.

3.1 FILTER MEDIA REPLACEMENT

If your fryer is equipped with a filter system, it will be either a UFM or built-in filter system. While both filter systems perform the same function, they have different filter system components. This section describes each of the filter system's components and details the procedures necessary to replace the filter media. Determine which filter system you have and refer to the appropriate section.

WARNING

At operating temperature, the shortening in the fryer may be hotter than 375°F (190°C). This hot, melted shortening will cause severe burns. Do not let the hot shortening touch your skin or clothing. Always wear insulated oil-proof gloves when working on the filter system.

3.1.1 UFM Filter System

The UFM filter module, also referred to as the Spacefighter filter module, stores neatly under the fryer when not in use. The unit is very easy to use and allows for quick installation and filtration, even under the busiest conditions. The filter module is shown in Figure 3-1 with specific components and features pointed out and briefly described.

Follow the procedures below to change the UFM filter bag.

WARNING

It will be easier and safer if the filter assembly has cooled to room temperature before handling any filter parts.

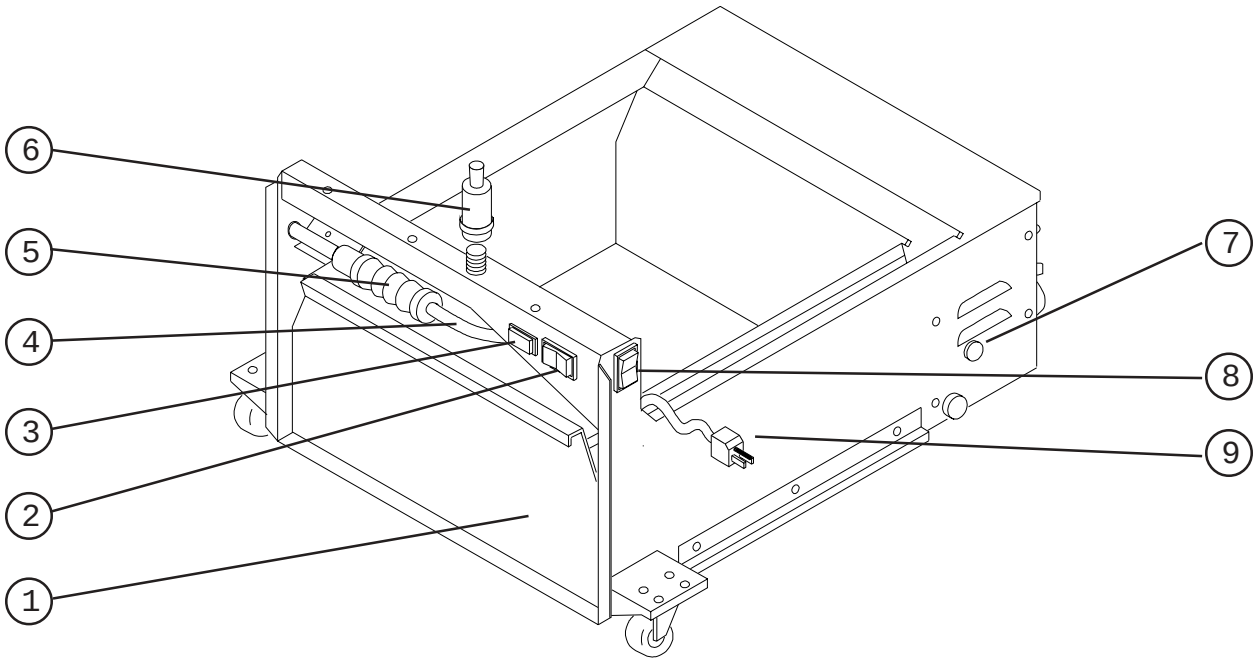


Figure 3-1 UFM Filter Module

(1) Filter Pan - Holds the oil from the fry tank.

(2) Pump Switch - Two position switch used to turn the filter pump ON/OFF.

(3) Preheat Finished Indicator - Lights to indicate that the filter lines are warmed to filtering temperature.

(4) Pick-Up Tube - Connects filter envelope assembly to piping. Incorporates a strainer to protect filter pump from grit in the event of envelope failure.

(5) Filter Assembly Connector - An insulated handle covers the filter pan assembly connection. This connection separates the filter pick-up assembly from the filter piping for removing the filter pan for cleaning.

(6) Filter Unit Quick Disconnect - Quick disconnect that connects the filter unit to the fryer.

(7) Pump Motor Thermal Overload - (Behind cover) Protects motor from high temperatures. Trips if the pump motor is near overheating.

(8) Circuit Breaker - Generally left ON. Will trip if overload occurs (i.e. pump is turned on but no system valves are open). To reset, find and correct cause of trip. Turn power switch (3) OFF. Push circuit breaker OFF, then return it to ON. Normal operation will resume.

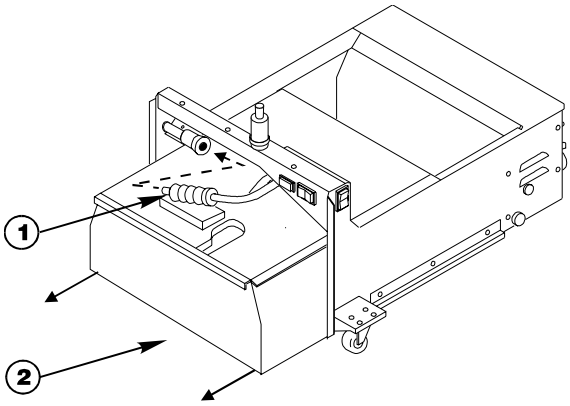
(9) Power Supply Cord - Plugs into fryer receptacle to provide power for filter operation.

WARNING

It will be easier and safer if the filter assembly has cooled to room temperature before handling any filter parts.

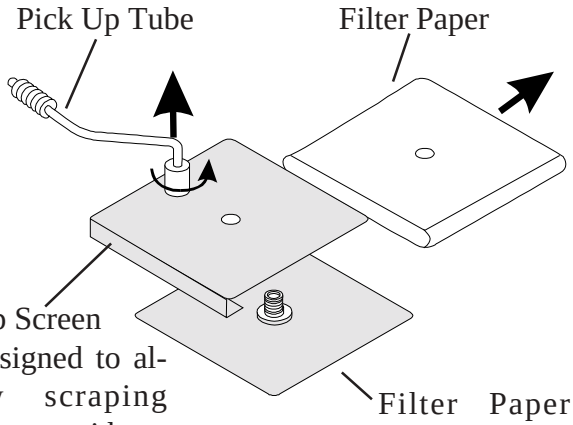
a. A unique design allows for paper replacement without the need to disconnect the filter unit from the fryer.

b. To remove the filter pan, disconnect the filter tube connection. This is done by sliding the insulated portion (1) of the connector out of the receiving portion of the connector.



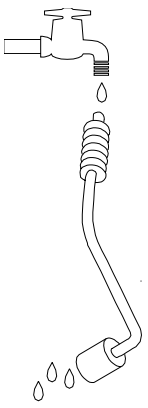
c. Grasp the filter pan handle and gently pull the assembly toward the front of the filter unit (2). When the pan is clear of the filter unit, remove the filter pan cover.

d. Remove the crumb catch tray from the front of the filter pan. Discard any debris that may be in the crumb catch.



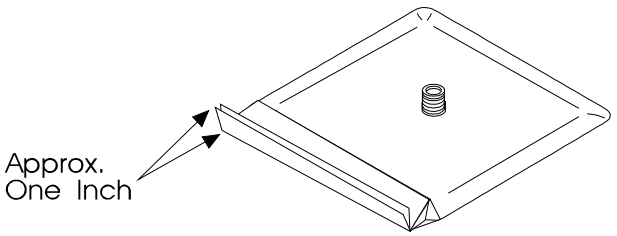
e. Lift up on the filter paper assembly and remove from the filter pan. Unscrew the suction tube from the filter paper support rack. Remove the clip screen and slide the filter paper support rack assembly out of the filter bag.

f. All of the filter pick up assembly parts can be washed in a dish washer or a pot sink. Flush out the suction tube assembly with hot water. The pick up tube screen keeps grit and solid material from binding the pump. After flushing the pick up tube screen check to ensure that the screen is free of debris. After cleaning, it is very important to thoroughly dry the parts before re-assembling. Water and oil do not mix. Water in hot oil will cause the oil to splatter.

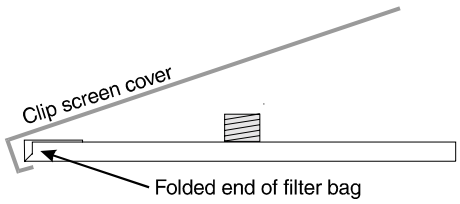


g. Start re-assembling the filter pick up assembly by sliding the new filter paper on to the filter paper support rack. Ensure that the hole in the filter paper goes over the pick up tube assembly threaded connector.

h. Fold the open end of the bag in two folds. The first fold should be approximately 1 inch from the end and the second should be over the edge of the rack assembly.



i. Slide the clip screen over the folded end of the filter paper. Ensure the opening of the clip screen goes over the pick up tube connection. Screw the suction tube assembly onto the threaded connection.



j. Place the filter rack assembly in the filter pan and install the crumb catch tray in the front of the filter pan.

k. Slide the filter pan assembly back into the filter unit and attach the pick up tube connector to the filter unit connection.

3.1.2 Built-In Filter System

The Built-In filter system is like the UFM filter system in that it is easy to use. The motor is built into the fryer and controlled from a panel mounted switch mounted on the front panel. The removable section of the filter system is shown in Figure 3-2 with specific components and features called out and briefly described.

Follow the procedures below to change the filter paper:

WARNING

It will be easier and safer if the filter assembly has cooled to room temperature before handling any filter parts.

a. Disconnect the filter pan suction hose (5) quick disconnect from the right hand (Black) filter fitting.

b. If the fryer is equipped with an optional flush hose, disconnect the flush hose from the left (White) filter fitting quick disconnect. Allow the hose to drain to the filter pan.

c. Slide the filter pan (1) out of the filter cabinet. Remove and empty the crumb basket.

d. Scrape the filter paper (3) to remove any sediment. Unclip the filter paper retainer handles (6) from the filter pan spring clips and remove the filter paper retainer (4). Remove and discard the old paper.

e. Thoroughly wash and clean the filter pan, crumb screen, filter paper support rack, and the filter paper retainer. Dry all the parts completely before re-assembly.

f. Place the filter paper support rack (2) in the bottom center of the filter pan. Place a new sheet of filter paper (3) over the support rack (2).

g. Install the filter paper retainer (4) over the filter paper (3) with the flush nozzle support rod in the front right corner of the pan. Ensure that all edges of the filter paper (3) are held in place by the retainer (4). Attach the retainer handles under the pan spring clips to hold the paper in place. Replace the crumb basket.

h. Slide the filter pan (1) back into the filter cabinet. Connect the filter pan suction hose (5) to the right (white) filter quick disconnect.

i. Slide the crumb basket under the drain elbow. If the unit has the optional flush hose, connect the flush hose to the left (black) filter fitting. Place the flush hose over the nozzle support rod on the paper retainer.

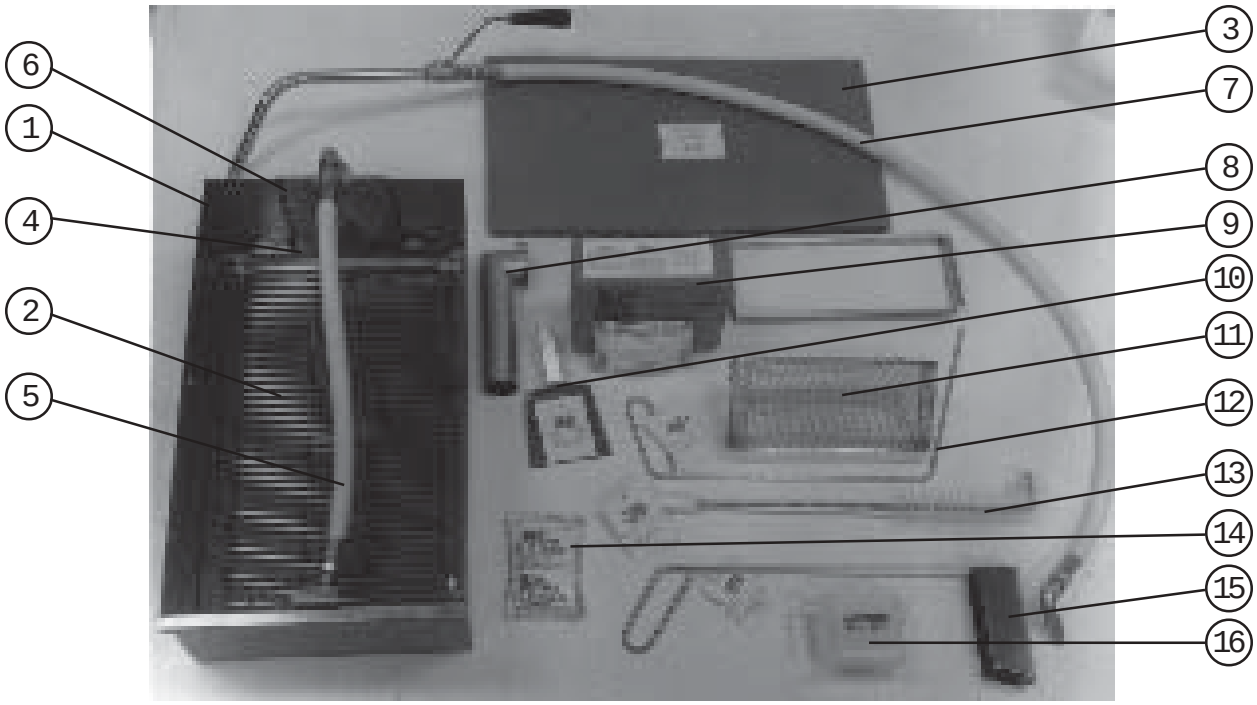


Figure 3-2 Built-In Filter System

(1) Filter Pan - Holds the oil from the fry tank.

(2) Filter Paper Support Rack - Provides a form for the filter paper to be held to.

(3) Filter Paper - Filter media.

(4) Filter Paper Retainer Rack - Fits over the filter paper on the filter paper support rack to hold the paper on.

(5) Filter Pan Inlet Hose - Returns filtered shortening from the filter pan.

(6) Filter Paper Retainer Handles - Snaps into place in the filter pan to hold the filter paper retainer rack in place.

(7) Flush Hose (OPTIONAL) - Attached to the filter piping, this hose and nozzle is used to flush out the tank. This hose is an optional item.

(8) Boilout Extension Elbow - Attaches to the oil drain to direct water to an external container. NEVER drain cleaning water to the filter pan.

(9) Precoat Filter Aid - Coarse Diatomaceous earth used to enhance the filter ability of the filter media.

(10) Filter Crumb Scoop - Short handle wide pan design, this scoop is used to remove the debris from the filter pan.

(11) Filter Crumb Catch - Mounts in the filter pan and catches large debris during filtering.

(12) Drain Clean Out Rod - Long handled design. This tool is used to clean out the drain openings.

(13) Cleaning Brush - This Long handled, stiff bristled brush is used to brush down the crumbs inside the fryer tank during shortening filtering.

(14) Cleaner - Used during fryer boil-out cleaning.

(15) Fryer Crumb Scoop - A specially designed long handle scoop for scooping out the fryer. The scoop section is narrow enough to fit into the small area of the fryer tank.

(16) Precoat Measuring Cup - Marked in ounces for correctly measuring precoat to be added to the shortening prior to filtering.

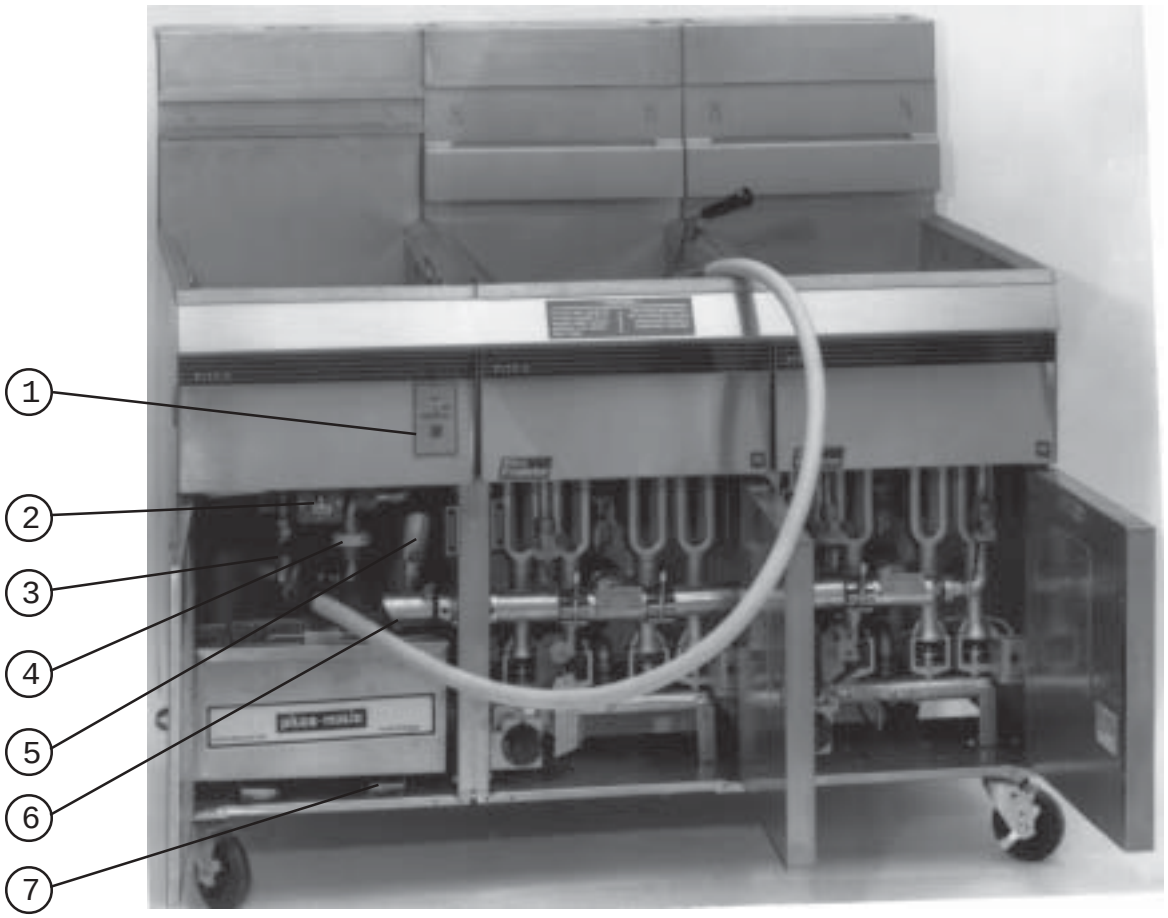


Figure 3-3 Fryer with Built-In Filter System Components

(1) Filter Pump Switch - Turns filter pump on to filter fryer shortening.

(2) Filter Circuit Breaker - Trips if overload occurs, i.e. pump is turned on but no system valves are open. To reset, find and correct the cause of the trip. Turn power switch (2) OFF. Push circuit breaker OFF, then return it to ON.

(3) Flush Hose Connection - Quick disconnect to attach the flush hose to.

(4) Filter Pan Connection - Quick disconnect used to connect the filter assembly to the fryer's oil piping.

(5) Boilout Compound Elbow Location - The boilout elbow is used instead of the standard length elbow to drain the tank of water after a boilout cleaning. The elbow is stored inside the fryer as indicated.

(6) Filter Drain Elbow - Standard drain elbow used to drain the fryer tank to the filter pan. Replace with the Boilout elbow to drain cleaning water from tank to an external pan. NEVER DRAIN THE WATER TO THE FILTER PAN.

(7) Filter Pan Heaters - (CAUTION - Extremely hot surfaces) - Electric heating elements used to heat the oil in the filter pan. Liquefies any solidified oil in the filter pan .

3.2 WEEKLY FRYER CLEANING (BOIL OUT)

The fryer should be thoroughly cleaned once a week. This cleaning should include a complete draining of the fryer and a boil out. This would also be a good time to replace the filter paper if necessary.

a. You will need a container large enough to hold 1 1/2 times the oil in one tank. This container should also be able to withstand boiling water temperatures.

CAUTION

Completely shut down the fryer when the oil is to be replaced by water, and when the heating portion of the cleaning is complete. This will prevent the heating system from coming on during the oil draining and water filling procedure.

b. Drain the oil from the fryer and discard or save for reuse. Remove tube rack/mesh tube screens and remove any large debris from the bottom of the fry tank. Once clean, return tube rack/mesh screens to the fry tank. Close the drain valve and fill the fry tank with water and noncaustic detergent. For best results use Pitco Fryer Cleaner part number P6071397.

c. Restart your fryer as described in 2.3 and set the thermostat to 200°F and bring the water to a slow boil. DO NOT allow water to boil because excessive foaming will occur. If you have the Intellifry computer allow the computer to automaticaly enter the BOIL mode. Once the water is at a slow boil turn off the fryer.

d. Allow the fryer to soak for 20 minutes to soften shortening deposits and carbon. Use fryer brush to remove any residue from tank, heating tubes, and side walls. Perform the daily cleaning procedure described in section 2.6.

e. Remove the filter unit from under the fryer (UFM Models) or remove the filter pan from the filter enclosure on built-in filter models. Direct the drain pipe that is normally aimed into the filter pan, into the container and open the drain valve.

f. Built-In filter units have a longer drain spout stored above the filter pan. This longer spout makes it easier to drain the fryer. Drain the hot water to the container and rinse the tank with clean warm water.

g. Wipe the tank dry with clean cloth wipes. Close the drain valve and remove the large container.

h. Refer to section 2.1 to refill the fryer.

3.3 INSTALLING THE OPTIONAL FLUSH HOSE

The flush hose option allows you to rinse out the fryer tank during shortening filtration. This option can be installed by the owner but it is recommended that you consult a qualified technician if you have any problems. The hardware necessary to install the flush hose option is listed below. Install the flush hose option as described in the procedures.

1	Flush Hose Assembly	(B6602501)	1	Valve Handle	(PP10050)
1	UFM Flush Hose Connection	(B6603101)	1	3/8" Valve	(P6071780)
1	Quick Disconnect - Black	(B7402241)	1	Plate for Label	(A6643402)
1	3/8" Street Elbow - Plated	(P7037752-1)	1	Label	(PP10057)
2	3/8" Close Nipple	(P7037301)	1	3/8" Tee	(P7036854)

a. Remove the old 3/8" street elbow and male quick-disconnect that connects the filter return hose to the filter. Put the quick disconnect aside as you will need it later.

b. Install the tee on the pipe where the elbow was. Install a close nipple in each of the tee's remaining openings.

c. Attach the previously removed male quick-disconnect on the right tee opening. Install the 3/8" valve, plate, and label on the left tee opening.

d. Install the long nipple in the 3/8" valve and the female quick-disconnect on the long nipple.

e. Connect the filter unit to the quick disconnect and the flush hose to the flush hose quick disconnect. During normal operation of the fryer, the yellow handle flush valve will be SHUT. Only open the flush valve during the filter procedures described in 2.4.

3.4 FLUE INSPECTION

It is recommended that once every six monts, with the cooker cooled down, you examine the flue area. Check for corrosion or blockage of the flue. Ensure that the cooker is shutdown and do not turn it on during the examination. Examination of the flue area during cooking may cause bodily injury.

3.5 BASKET LIFT LUBRICATION

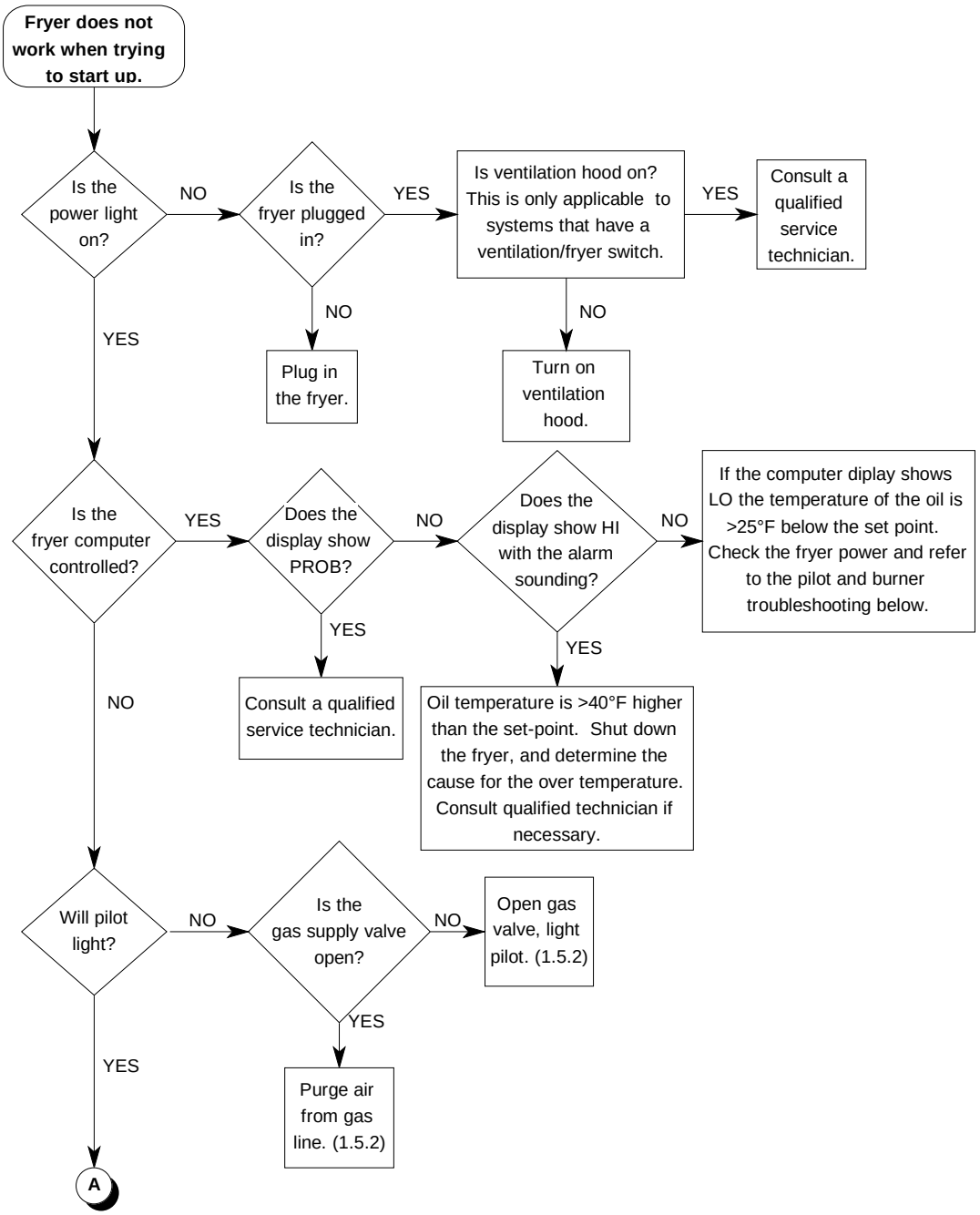
The basket lift motors and linkages do not need lubrication. Oil impregnated bearings are used to avoid the need to lubricate these components.

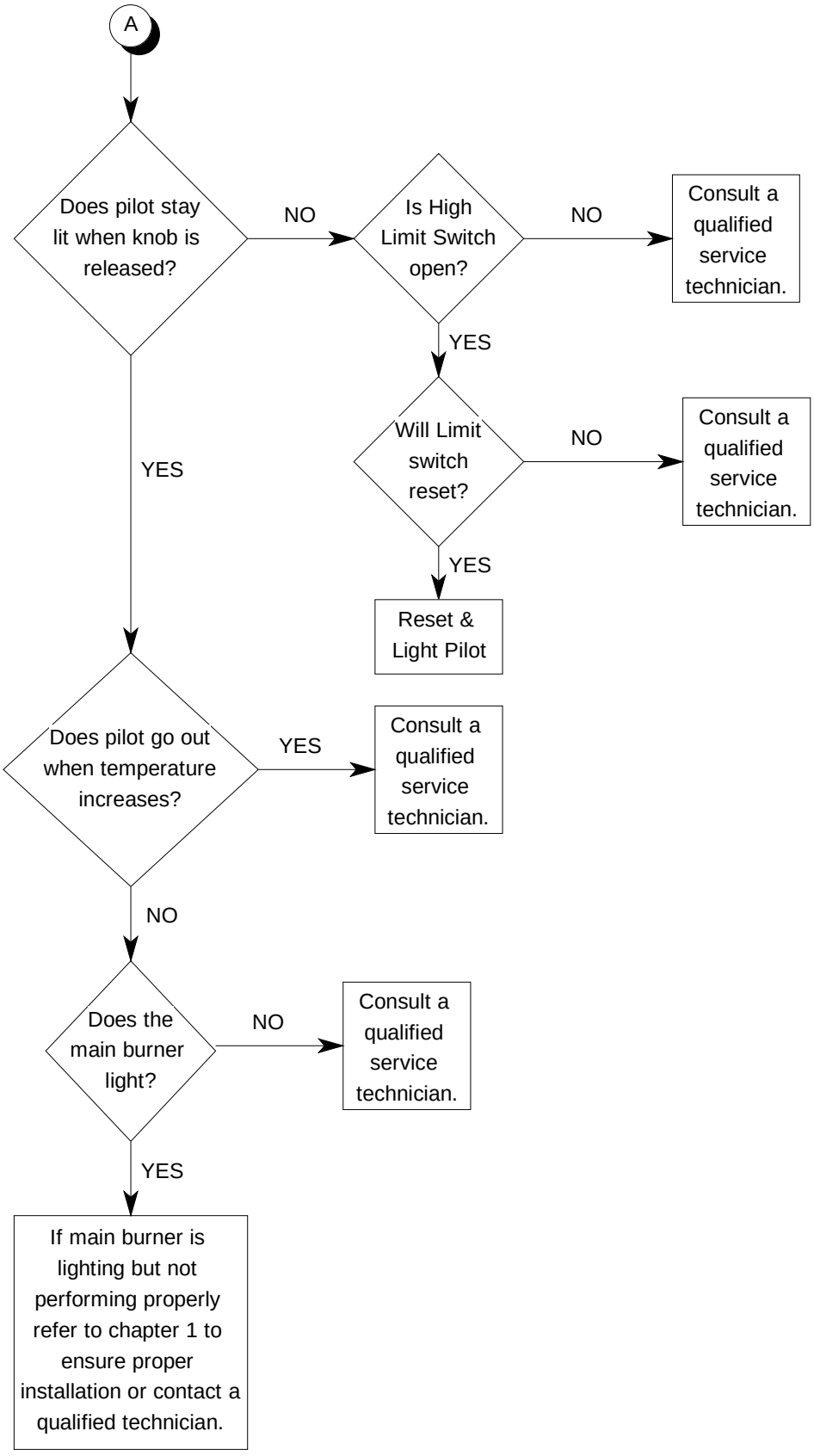
3.6 TROUBLESHOOTING

This section is provided to aid you in the event of fryer or filter troubles. If these troubleshooting procedures do not correct your problem contact a qualified technician or the factory. The troubleshooting procedures are in a flowchart format.

3.6.1 Fryer Troubleshooting

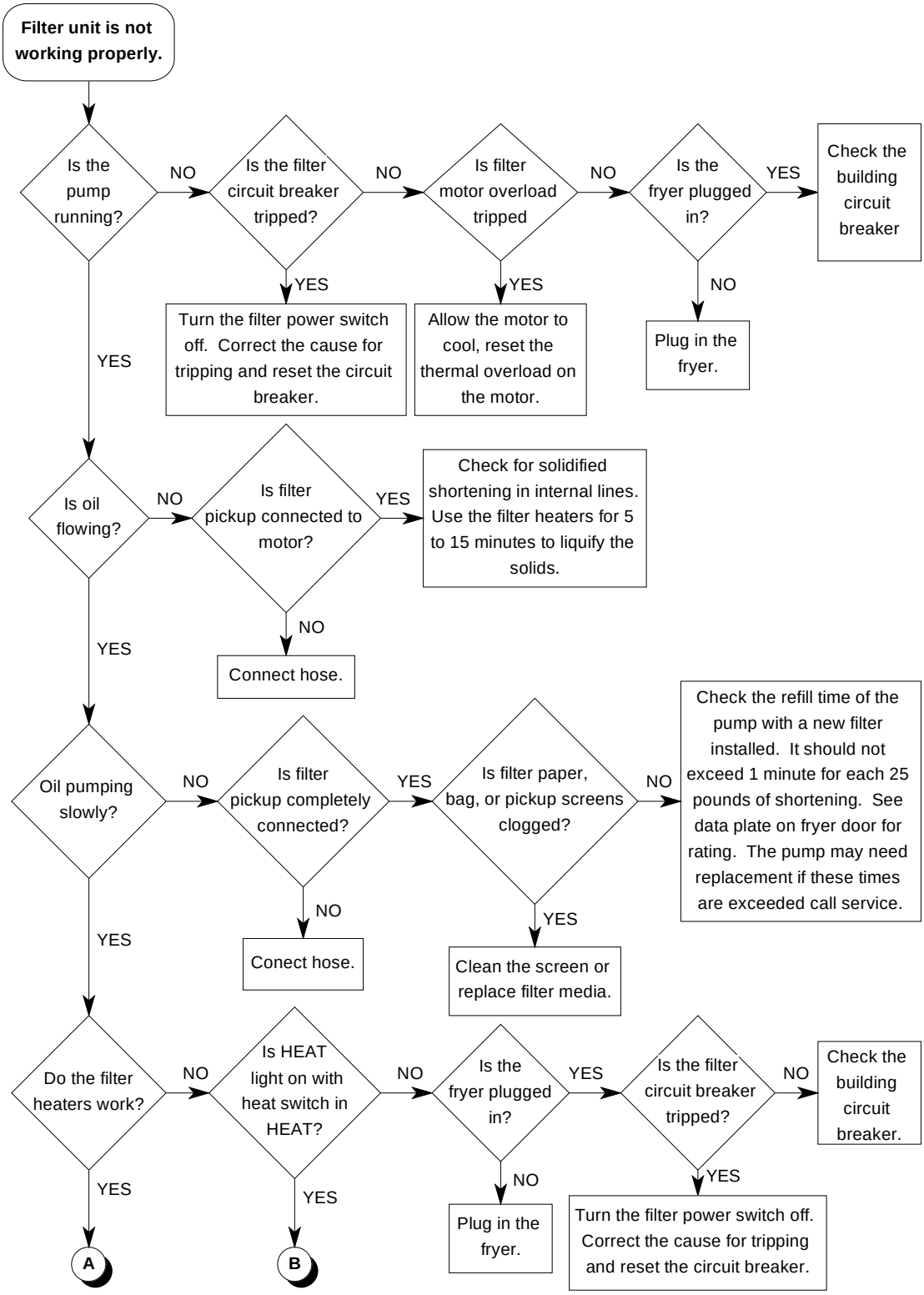
Refer to this section to correct common problems that may be encountered in equipment operation.

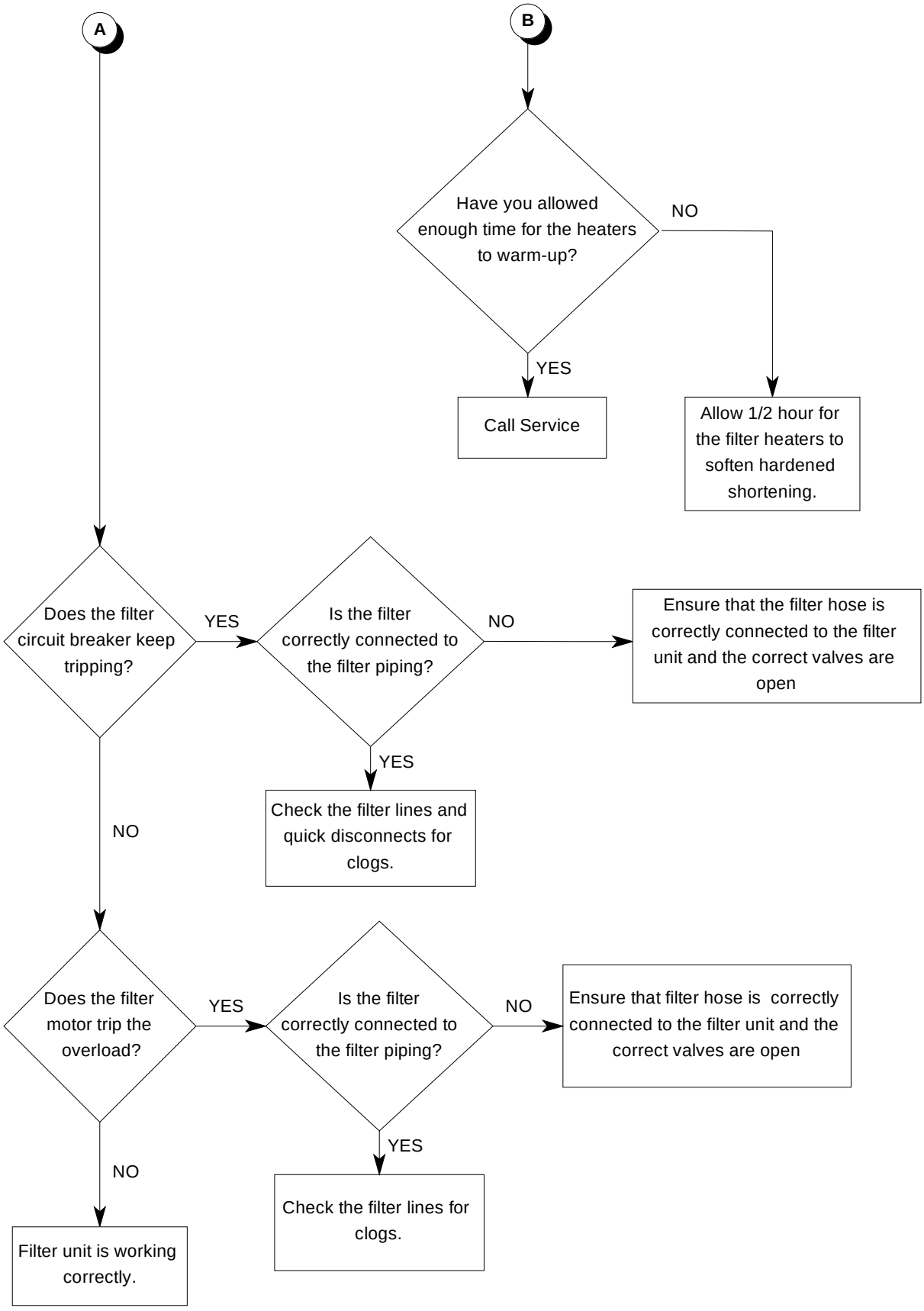

Fryer does not work when trying to start up.
Is the power light on?
NO
Is the fryer plugged in?
YES
Is ventilation hood on? This is only applicable to systems that have a ventilation/fryer switch.
YES
Consult a qualified service technician.
NO
Plug in the fryer.
NO
Turn on ventilation hood.
YES
Is the fryer computer controlled?
YES
Does the display show PROB?
NO
Does the display show HI with the alarm sounding?
NO
If the computer diplay shows LO the temperature of the oil is >25°F below the set point. Check the fryer power and refer to the pilot and burner troubleshooting below.
YES
Consult a qualified service technician.
YES
Oil temperature is >40°F higher than the set-point. Shut down the fryer, and determine the cause for the over temperature. Consult qualified technician if necessary.
NO
Will pilot light?
NO
Is the gas supply valve open?
NO
Open gas valve, light pilot. (1.5.2)
YES
Purge air from gas line. (1.5.2)
YES
A


A
Does pilot stay lit when knob is released?
NO
Is High Limit Switch open?
NO
Consult a qualified service technician.
YES
Will Limit switch reset?
NO
Consult a qualified service technician.
YES
Reset & Light Pilot
YES
Does pilot go out when temperature increases?
YES
Consult a qualified service technician.
NO
Does the main burner light?
NO
Consult a qualified service technician.
YES
If main burner is lighting but not performing properly refer to chapter 1 to ensure proper installation or contact a qualified technician.

3.6.2 Built-In Filter Troubleshooting

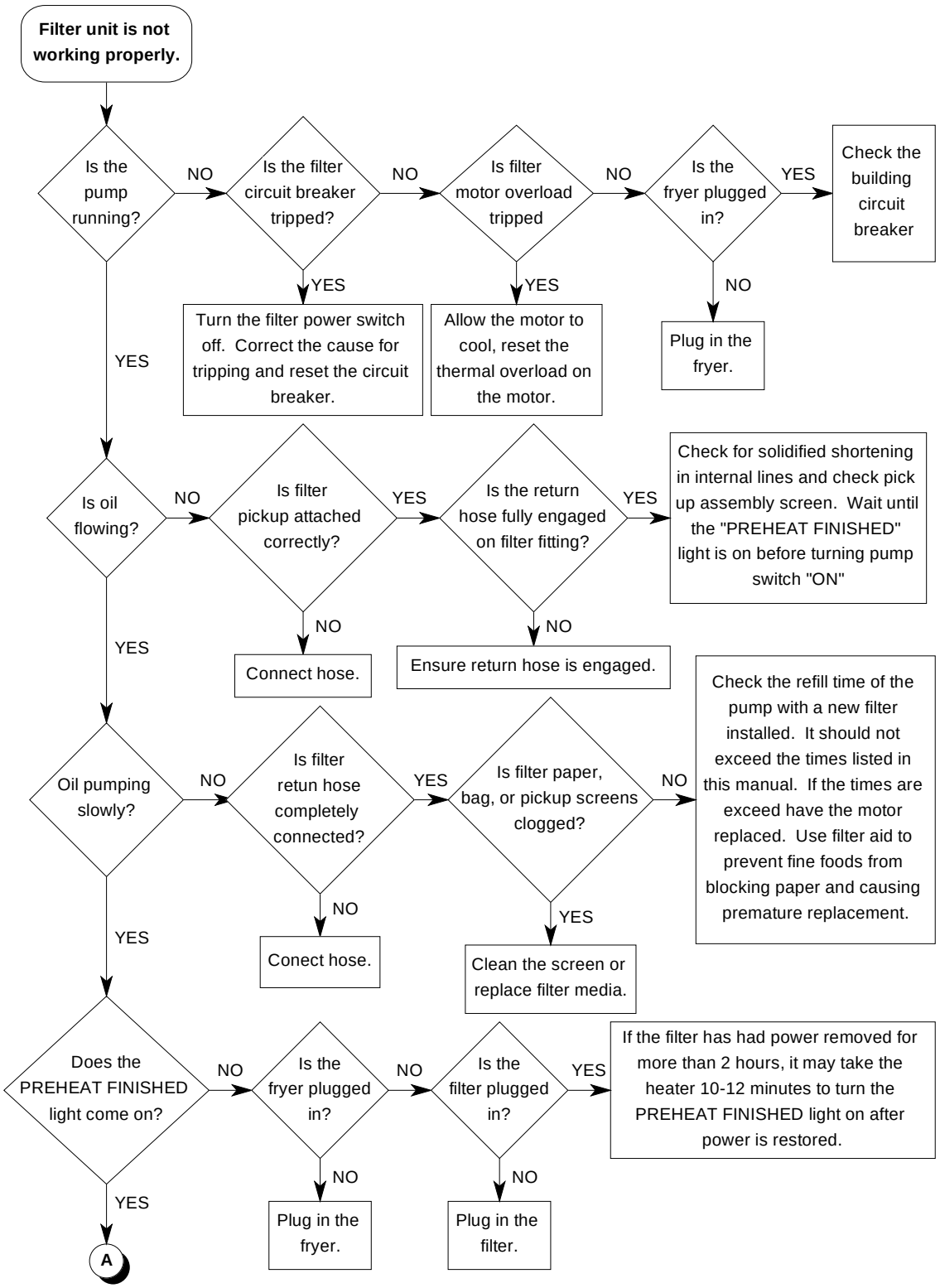
Refer to this section to correct common problems that may be encountered during filter operation.

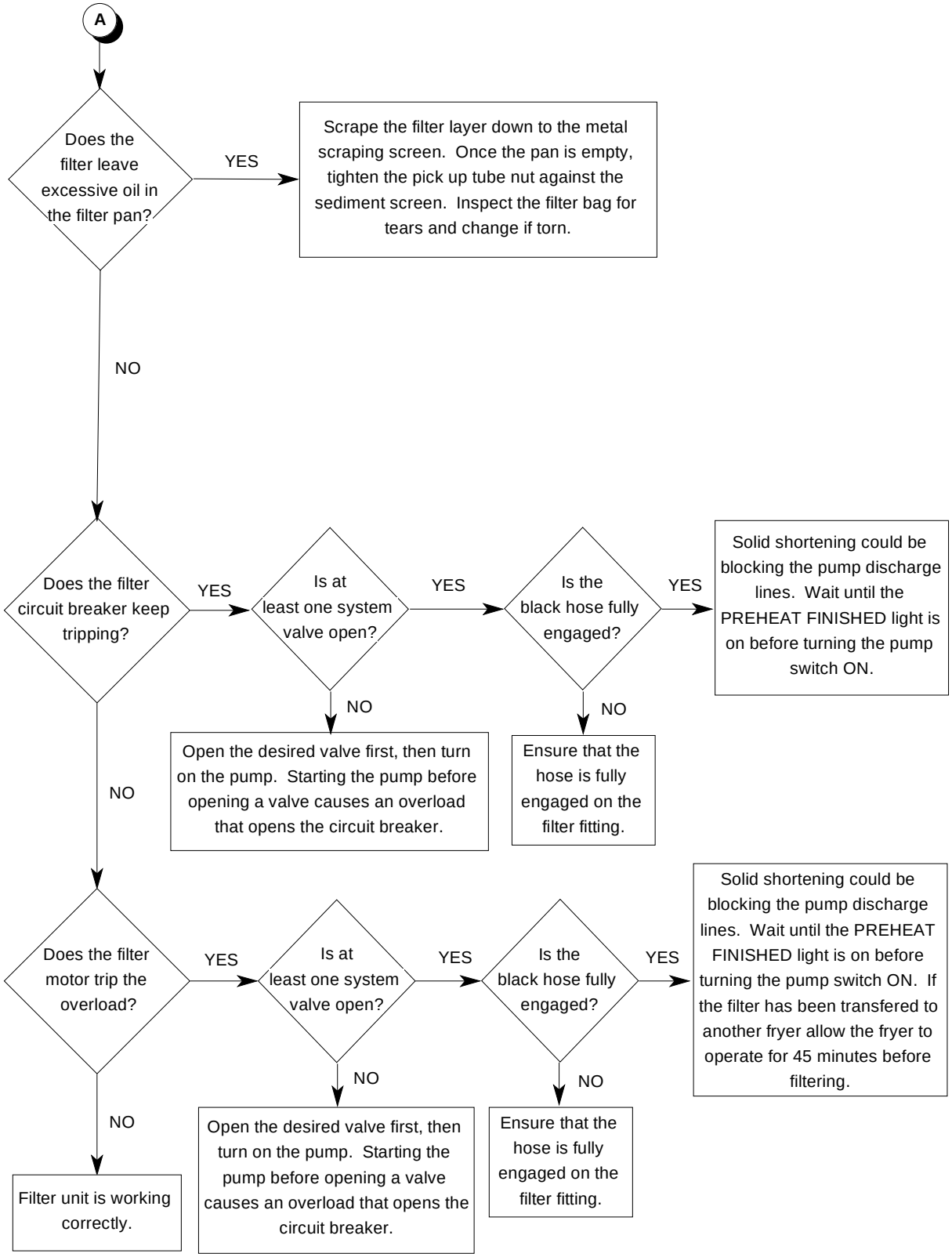

Filter unit is not working properly.
Is the pump running?
NO
Is the filter circuit breaker tripped?
NO
Is filter motor overload tripped
NO
Is the fryer plugged in?
YES
Check the building circuit breaker
YES
Turn the filter power switch off. Correct the cause for tripping and reset the circuit breaker.
YES
Allow the motor to cool, reset the thermal overload on the motor.
NO
Plug in the fryer.
YES
Is oil flowing?
NO
Is filter pickup connected to motor?
YES
Check for solidified shortening in internal lines. Use the filter heaters for 5 to 15 minutes to liquify the solids.
NO
Connect hose.
YES
Oil pumping slowly?
NO
Is filter pickup completely connected?
YES
Is filter paper, bag, or pickup screens clogged?
NO
Check the refill time of the pump with a new filter installed. It should not exceed 1 minute for each 25 pounds of shortening. See data plate on fryer door for rating. The pump may need replacement if these times are exceeded call service.
NO
Conect hose.
YES
Clean the screen or replace filter media.
YES
Do the filter heaters work?
NO
Is HEAT light on with heat switch in HEAT?
NO
Is the fryer plugged in?
YES
Is the filter circuit breaker tripped?
NO
Check the building circuit breaker.
YES
A
YES
B
NO
Plug in the fryer.
YES
Turn the filter power switch off. Correct the cause for tripping and reset the circuit breaker.


A
B
Have you allowed enough time for the heaters to warm-up?
NO
YES
Call Service
Allow 1/2 hour for the filter heaters to soften hardened shortening.
Does the filter circuit breaker keep tripping?
YES
Is the filter correctly connected to the filter piping?
NO
Ensure that the filter hose is correctly connected to the filter unit and the correct valves are open
YES
Check the filter lines and quick disconnects for clogs.
NO
Does the filter motor trip the overload?
YES
Is the filter correctly connected to the filter piping?
NO
Ensure that filter hose is correctly connected to the filter unit and the correct valves are open
YES
Check the filter lines for clogs.
NO
Filter unit is working correctly.

3.6.3 UFM Filter Troubleshooting

Refer to this section to correct common problems that may be encountered during filter operation.


Filter unit is not working properly.
Is the pump running?
NO
Is the filter circuit breaker tripped?
NO
Is filter motor overload tripped
NO
Is the fryer plugged in?
YES
Check the building circuit breaker
YES
Turn the filter power switch off. Correct the cause for tripping and reset the circuit breaker.
YES
Allow the motor to cool, reset the thermal overload on the motor.
NO
Plug in the fryer.
YES
Is oil flowing?
NO
Is filter pickup attached correctly?
YES
Is the return hose fully engaged on filter fitting?
YES
Check for solidified shortening in internal lines and check pick up assembly screen. Wait until the "PREHEAT FINISHED" light is on before turning pump switch "ON"
NO
Connect hose.
NO
Ensure return hose is engaged.
YES
Oil pumping slowly?
NO
Is filter retun hose completely connected?
YES
Is filter paper, bag, or pickup screens clogged?
NO
Check the refill time of the pump with a new filter installed. It should not exceed the times listed in this manual. If the times are exceed have the motor replaced. Use filter aid to prevent fine foods from blocking paper and causing premature replacement.
NO
Conect hose.
YES
Clean the screen or replace filter media.
YES
Does the PREHEAT FINISHED light come on?
NO
Is the fryer plugged in?
NO
Is the filter plugged in?
YES
If the filter has had power removed for more than 2 hours, it may take the heater 10-12 minutes to turn the PREHEAT FINISHED light on after power is restored.
YES
A
NO
Plug in the fryer.
NO
Plug in the filter.


A
Does the filter leave excessive oil in the filter pan?
YES
Scrape the filter layer down to the metal scraping screen. Once the pan is empty, tighten the pick up tube nut against the sediment screen. Inspect the filter bag for tears and change if torn.
NO
Does the filter circuit breaker keep tripping?
YES
Is at least one system valve open?
YES
Is the black hose fully engaged?
YES
Solid shortening could be blocking the pump discharge lines. Wait until the PREHEAT FINISHED light is on before turning the pump switch ON.
NO
Open the desired valve first, then turn on the pump. Starting the pump before opening a valve causes an overload that opens the circuit breaker.
NO
Ensure that the hose is fully engaged on the filter fitting.
NO
Does the filter motor trip the overload?
YES
Is at least one system valve open?
YES
Is the black hose fully engaged?
YES
Solid shortening could be blocking the pump discharge lines. Wait until the PREHEAT FINISHED light is on before turning the pump switch ON. If the filter has been transfered to another fryer allow the fryer to operate for 45 minutes before filtering.
NO
Open the desired valve first, then turn on the pump. Starting the pump before opening a valve causes an overload that opens the circuit breaker.
NO
Ensure that the hose is fully engaged on the filter fitting.
NO
Filter unit is working correctly.